

Posters for BASO Trainees and BASO Poster Presentations (Part – 1)

at the 2020 BASO Annual (virtual) Scientific Meeting
21st – 23rd November 2020

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Introduction

Plasma cell neoplasms are a group of proliferative disorders which can either present as solitary plasmacytoma or multiple myeloma (MM)(1,2). MM affecting the laryngeal cartilage is rare. A literature review of 16 cases reported that 81% of EMP presents as a manifestation of MM, 19% as localised EMP (2). In this case report, we discuss a rare case of extramedullary recurrence of multiple myeloma involving the larynx.

Objectives

Presentation

A 69-year-old male ex-smoker presented with a 7-week history of stridor, right-sided globus, productive cough, dysphagia, odynophagia and aspiration. He had received local radiotherapy and was undergoing chemotherapy for IgG kappa multiple myeloma with T12 plasmacytoma.

Investigations

Flexible nasendoscopy (FNE): generalised laryngeal oedema in a mobile larynx. MRI neck with gadolinium: post-cricoid soft tissue enhancement with normal cartilage, suggestive of an inflammatory lesion with extensive surrounding oedema (Figure 1).

Differential diagnoses

Laryngeal malignancy or lower respiratory tract infection secondary to chemotherapy.

Second presentation

Over 2 weeks later, stridor progressed requiring emergency intubation.

Investigations

FNE: bilateral vocal cord palsy and pus in the vallecula.
 CT neck with contrast: subglottic tissue oedema; with no evidence of a collection or erosion. There were presumed reactive lymph nodes in the cervical region.
 MRI neck with contrast: progression and extension of the post-cricoid lesion, suggestive of infection.
 Biopsy: Multiple biopsies of the post-cricoid space revealed chronic inflammation with no signs of malignancy.

Differential diagnoses

Plasmacytoma or abscess leading to chondronecrosis of the larynx.

Management

Daratumumab monotherapy, followed by total laryngectomy eight months later for incompetent larynx.

Immunohistochemistry

Kappa light chain restriction within plasma cells in the hyoid bone and laryngeal soft tissue, consistent with myeloma infiltration (Figure 2).

Follow up

A year later the patient has achieved speech with an oesophageal speech valve and is on a normal diet. He maintains biochemical response to pomalidomide and dexamethasone.

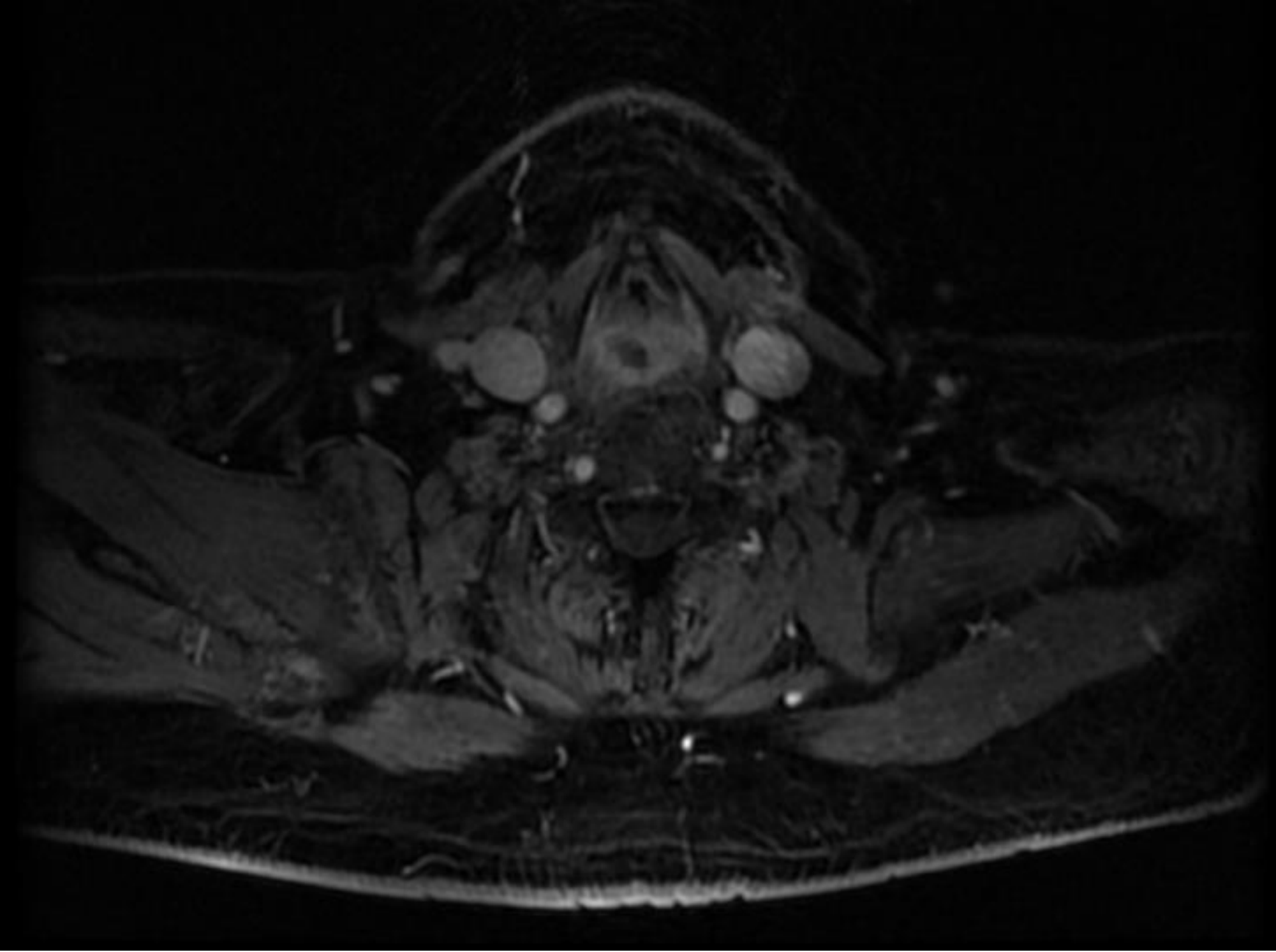


Figure 1: Gadolinium-enhanced-T2-weighted MR image in the transverse plane depicting high T2 signal and enhancement in the post-cricoid region, extending anteriorly to involve the false cords (particularly the right), and a cuff of enhancing soft tissue inside the cricoid.

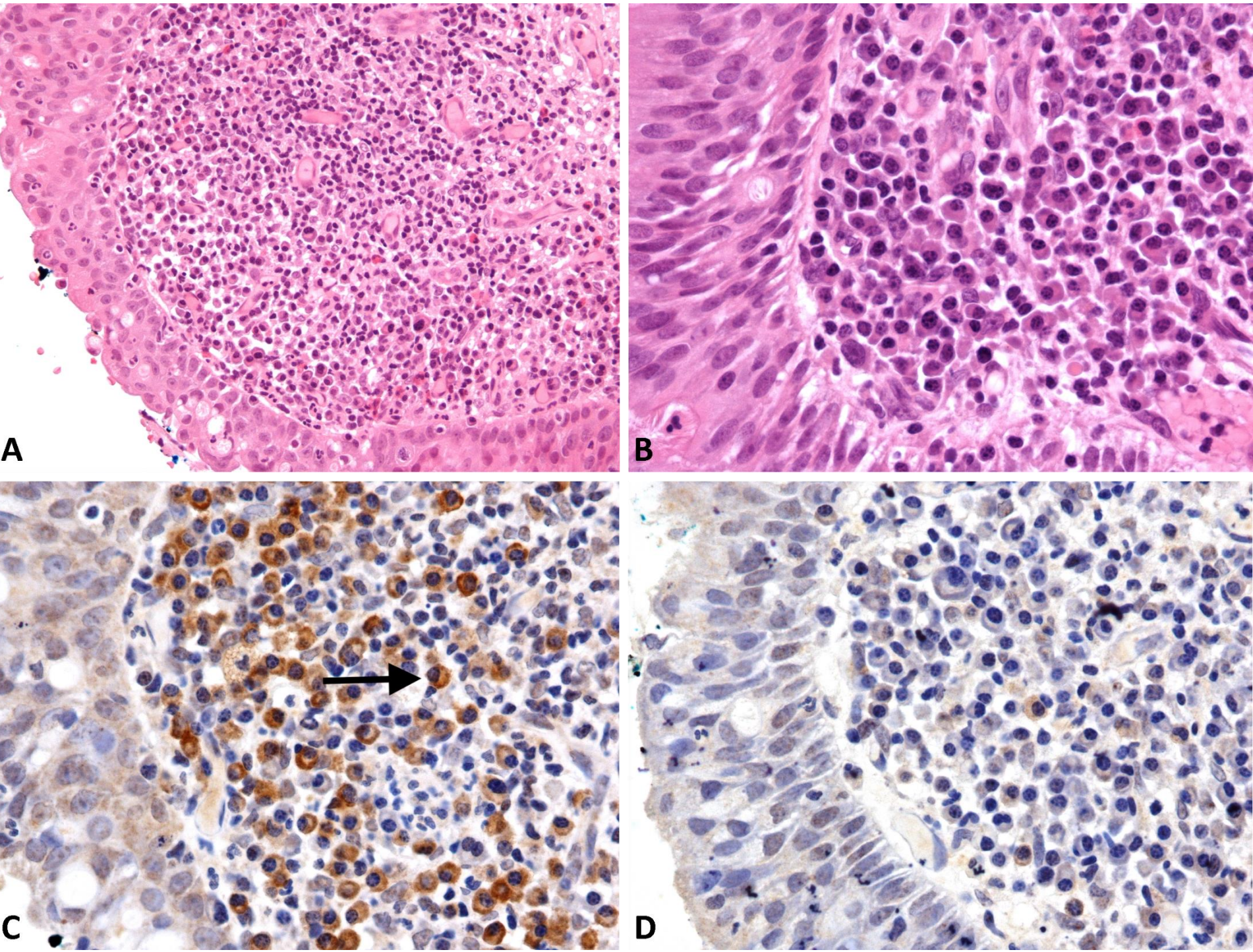


Figure 2: Histological examination of the laryngectomy specimen showed an infiltration of plasma cells within the subepithelial stroma (A. H&E, x20; B. H&E, x40). Immunohistochemistry showed that the plasma cells were kappa restricted (arrow), in keeping with a diagnosis of IgG kappa-restricted plasma cell myeloma (C. kappa; D. lambda).

Discussion

Challenges in diagnostic workup

This challenging case reflects how important a comprehensive workup is. Typical findings of CT scans of MM of larynx include calcifications and infiltrative growth of cortical cartilage (2,3). Positron emission tomography (PET) scan can be used to detect lesions (2). However, it would also detect inflammation caused by infection, which was the most probable differential diagnosis at that time.

Malignancy was not confirmed until immunohistochemistry staining of laryngeal specimen had been performed. It was postulated that deep biopsies from cartilage or bones would be better at detecting malignant cells, as in-office FNE biopsies target the mucosal layer and 80% of EMPs are submucosal (4). FNE biopsies in this patient were done post-chemotherapy, which may have obscured the pathology further. The extent of the lesion prior to any treatment is unclear.

Management

The common localised treatment methods for extramedullary plasmacytoma include surgical excision with combination of radiotherapy (2,4–6). Systemic treatment with chemotherapy is useful in the setting of multiple myeloma, with stem cell transplantation as an alternative therapy (3,4,7). This patient was suitable for a laryngectomy due to dysfunctional larynx. One could argue that radiotherapy targeted at the larynx could have prevented vocal cord palsy and later a laryngectomy. However, the diagnosis was not confirmed until immunohistochemistry was performed on laryngeal specimens. Furthermore, once the larynx was dysfunctional, radiotherapy would not have been beneficial.

Conclusions

Extramedullary involvement of multiple myeloma in the larynx is a challenging diagnosis and prompts thorough investigation with a range of modalities if suspected. Deep biopsies of the larynx should always be considered. The potential benefit of a PET scan is unclear. Chemotherapy should be commenced at an early stage to prevent further progression and remission of multiple myeloma at an extramedullary site.

Acknowledgements

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References

- Multiple myeloma: Clinical features, laboratory manifestations, and diagnosis - UpToDate [Internet]. [cited 2020 Apr 9]. Available from: https://www.uptodate.com/contents/multiple-myeloma-clinical-features-laboratory-manifestations-and-diagnosis?search=neoplastic%20proliferation%20of%20plasma%20cells&topicRef=6659&source=see_link
- You WS, Bhuta S. Myeloma of Laryngeal Cartilage: Literature Review and Case Study. Ear, Nose, & Throat Journal. 2019;145561319861379.
- Steinke JV, Schneider BK, Weikoborsky HJ. Rare Differential Diagnosis of Dyspnea: Extramedullary Plasmacytoma (EMP) of the Larynx-Case Report and Review of the Latest Literature of Laryngeal EMP and Laryngeal Involvement of Multiple Myeloma. Case Reports in Otolaryngology Print. 2019;2019:5654014.
- Mitchell HK, Garas G, Mazarakis N, McGlashan J. Extramedullary relapse of multiple myeloma in the thyroid cartilage. BMJ Case Reports. 2013;30:30.
- Kalayoglu-Besik S, Yonal I, Hindlerden F, Agan M, Sargin D. Plasmacytoma of the nasolacrimal duct simulating dacryocystitis: an uncommon presentation for extramedullary relapse of multiple myeloma. Case Reports Oncology. 2012;5(1):119–24.
- Flore B, Hermans R. Multiple myeloma involving the cricoid cartilage. Jbr-Btr: Organe de la Societe Royale Belge de Radiologie. 2013;96(2):87–8.
- Allegra E, Marino N, Modica D, Emanuele C, Saita V. Primary laryngeal localization of multiple myeloma: A case report. Molecular & Clinical Oncology. 2017;6(2):154–6.



Poster 13: Colonoscopy and flexible sigmoidoscopy for follow-up of patients with left-sided diverticulitis

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Introduction / Background

- The prevalence of diverticular disease has been increasing in the Western world over the past few decades. While previously considered as a disease primarily affecting the elderly, the incidence among younger people is rising. The burden of diverticular disease on the healthcare system has increased with more hospital admissions and investigations required¹.
- Diverticulitis can be simple (uncomplicated) or complicated by bleeding, perforation, abscess or bowel obstruction. Diagnosis is usually confirmed by computed tomography (CT).² In patients with complicated diverticulitis or those with concerning findings on CT, endoscopic follow-up is recommended after resolution of the acute episode to exclude any neoplasm or other colonic disease such as inflammatory bowel disease, which can mimic the symptoms of diverticulitis.³
- Evaluation of the whole colon can be achieved using colonoscopy, while flexible sigmoidoscopy can only access the left side of the colon. The colonoscopy compared with flexible sigmoidoscopy is a time-consuming and relatively expensive procedure with a higher chance of serious complications, and requires full bowel preparation, which can be challenging in some patients with other comorbidities.⁴

Objectives

This study aims to assess the uses of flexible sigmoidoscopy and colonoscopy as a follow-up investigation for patients diagnosed with acute left-sided diverticulitis and to evaluate the need of using either procedure.

Methods and Materials

- A retrospective study was designed with 327 patients who were diagnosed with acute diverticulitis, based on their hospital electronic discharge notification, after admission to Medway Maritime Hospital, Kent, over a three-year period from 2016 to 2019.
- Diagnosis was confirmed via CT. Some 18 patients were excluded as they had extensive or right-sided diverticulitis and 69 patients did not attend their follow-up appointment. After discharge, 240 patients with left-sided diverticulitis were included in the present study as they underwent endoscopic follow-up evaluation. The selected patients were organised into two equal groups: one group included 120 patients who underwent colonoscopy and the other included 120 patients who underwent flexible sigmoidoscopy.
- The CT results were reviewed using the hospital picture archiving and communication system. All CT scans were originally reported by consultant radiologists. The endoscopic results were also reviewed on the hospital's online endoscopy website system (Endoweb).
- All endoscopes were performed and reported by fully trained endoscopists. A Lucera-type colonoscope (Olympus, Japan) was used in both colonoscopy and flexible sigmoidoscopy. Biopsies were obtained from 53 patients (32 during colonoscopy and 21 during flexible sigmoidoscopy) and the histopathology reports were reviewed on Maidstone and Tunbridge Wells NHS Trust Telepath website.

Results

The ages of the 120 patients who underwent colonoscopy ranged between 46 and 90 years (standard deviation, SD, 70 ± (Table 1). All colonoscopies were reported as 10.2 years) and 65% were female. All colonoscopies were reported as sigmoid diverticular disease with no major new findings differing from the CT results. However, eight patients were reported with inflammation in addition to diverticular disease. Another 4 patients had mucosal ulcerations, 12 patients had low-risk polyps and 5 patients had muscle hypertrophy of the colonic wall having no complications during the procedure, while nine colonoscopies were reported as being difficult procedures, with or without looping. During the procedure, moderate to severe discomfort, with or without pain, was reported by 18 patients, which led to early termination of the procedure in 5 cases. Some 112 patients had the procedure under a variable degree of sedation and/or analgesia. During colonoscopy, poor bowel preparation was reported in seven procedures with poor visualisation in eight cases. Biopsies were obtained from 32 patients. A histopathological examination revealed no dysplasia or malignancy, although eight were reported to have adenoma (Table 2). The average length of the procedure was 40 minutes. The second 120 patients underwent flexible sigmoidoscopy. Their ages ranged between 28 and 91 years (SD 72 ± 13.9) and 63% were female. All flexible sigmoidoscopies were reported as sigmoid diverticular disease with no major new findings differing from the CT results. However, 10 patients were reported with inflammation in addition to diverticular disease, another 4 with mucosal ulcerations, 8 with low-risk polyps and 2 with muscle hypertrophy of the colonic wall (Table 1). All flexible sigmoidoscopies were reported as having no complications during the procedure, while three flexible sigmoidoscopies were reported as being difficult procedures. During the flexible sigmoidoscopies, moderate to severe discomfort with or without pain was reported by 16 patients, which led to early termination of the procedure in three cases. Sixteen patients had the procedure performed under a variable degree of sedation and/or analgesia. During the flexible sigmoidoscopy, poor bowel preparation was reported in 26 patients with poor visualisation in 16. Biopsies were obtained from 21 patients and their histopathological examination showed no dysplasia or malignancy, although 4 were reported with adenoma (Table 2). The average length of the procedure was 15 minutes.

Table 1. Summary of endoscopic findings by colonoscopy and flexible sigmoidoscopy.

Finding with diverticular disease	Colonoscopy (n)	Flexible sigmoidoscopy (n)
Inflammation	8	14
Mucosal ulceration	4	4
Muscle hypertrophy	5	2
Polyp	12	8
Normal	91	92
Total Patients	120	120

Table 2. Histopathological results from biopsies by colonoscopy and flexible sigmoidoscopy..

Results from biopsy	Colonoscopy (n)	Colonoscopy (%)	Flexible sigmoidoscopy (n)	Flexible sigmoidoscopy (%)
Cancer	0		0	
Adenoma	8	25	4	19
Neither	24	75	17	81
Total biopsies	32		21	

Discussion

- There are many conflicts between studies on the benefits of performing endoscopy after a diagnosis with diverticulitis, with many reviewed studies drawing the conclusion that endoscopy can be omitted after an episode of uncomplicated diverticulitis.⁵ However, it can be beneficial in cases of complicated diverticulitis or continuing symptoms, and in patients aged over 70 years, because the risk of malignancy in these patients is higher.⁶ In contrast, the Association of Coloproctology of Great Britain and Ireland (ACPGBI) has recommended that all patients require investigation of the colonic lumen by endoscopy, barium enema or CT colonography after the acute attack of diverticulitis has resolved.⁷
- Both screening colonoscopy and flexible sigmoidoscopy were associated with reductions in overall colorectal cancer incidence, with greater reductions in incidence associated with colonoscopy rather than flexible sigmoidoscopy, particularly in the right colon.⁸ All patients included in the current study were diagnosed with left-sided diverticulitis. Although the number of patients included in this study was relatively small, it shows interesting findings of clinical significance.
- The recent consensus guidelines jointly commissioned by the British Society of Gastroenterology, the ACPGBI and Public Health England recommended no colonoscopic surveillance post-polypectomy if there is no evidence to suggest high-risk findings (≥ 2 premalignant polyps including ≥ 1 advanced colorectal polyp; or ≥ 5 premalignant polyps).⁹ In our study, polyps detected were of low risk and biopsies confirmed no malignancy, so all patients were discharged with no follow-up required.

Conclusions

There is no evidence to support the routine use of endoscopic evaluation after an episode of left-sided diverticulitis diagnosed on CT if no worrying radiological findings have been reported. This study supports similar findings from other recent studies and therefore we disagree with the Royal College of Surgeons of England (ACPGBI recommendation) commissioning guide, which advocates routine surveillance of the colon.

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References

- Munie ST, Nalamati SPM. Epidemiology and pathophysiology of diverticular disease. Clin Colon Rectal Surg 2018; 31: 209–213.
- Young-Fadok TM. Diverticulitis. N Engl J Med 2018; 379: 1635–1642.
- Weizman AV, Nguyen GC. Diverticular disease: epidemiology and management. Can J Gastroenterol 2011; 25: 385–389.
- Bonington SN, Rutter MD. Surveillance of colonic polyps: are we getting it right? World J Gastroenterol 2016; 22: 1925–1934.
- Sharma PV, Eglinton T, Hider P et al. Systematic review and meta analysis of the role of routine colonic evaluation after radiologically confirmed acute diverticulitis. Ann Surg 2014; 259: 263–272.
- Rottier SJ, van Dijk ST, van Geloven AAW et al. Meta-analysis of the role of colonoscopy after an episode of left-sided acute diverticulitis. Br J Surg 2019; 106: 988–997.
- Royal College of Surgeons of England. Commissioning Guide: Colonic Diverticular Disease. London: RCS; 2014.
- Ko CW, Doria-Rose VP, Barrett MJ et al. Screening colonoscopy and flexible sigmoidoscopy for reduction of colorectal cancer incidence: a case-control study. PLoS One 2019; 14: e0226027.
- Rutter MD, East J, Rees CJ et al. British Society of Gastroenterology/Association of Coloproctology of Great Britain and Ireland/Public Health England post-polypectomy and post-colorectal cancer resection surveillance guidelines. Gut 2020; 69: 201–223.

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Poster 14: Cost Analysis Comparison of Mohs Micrographic Surgery in the United States of America and United Kingdom

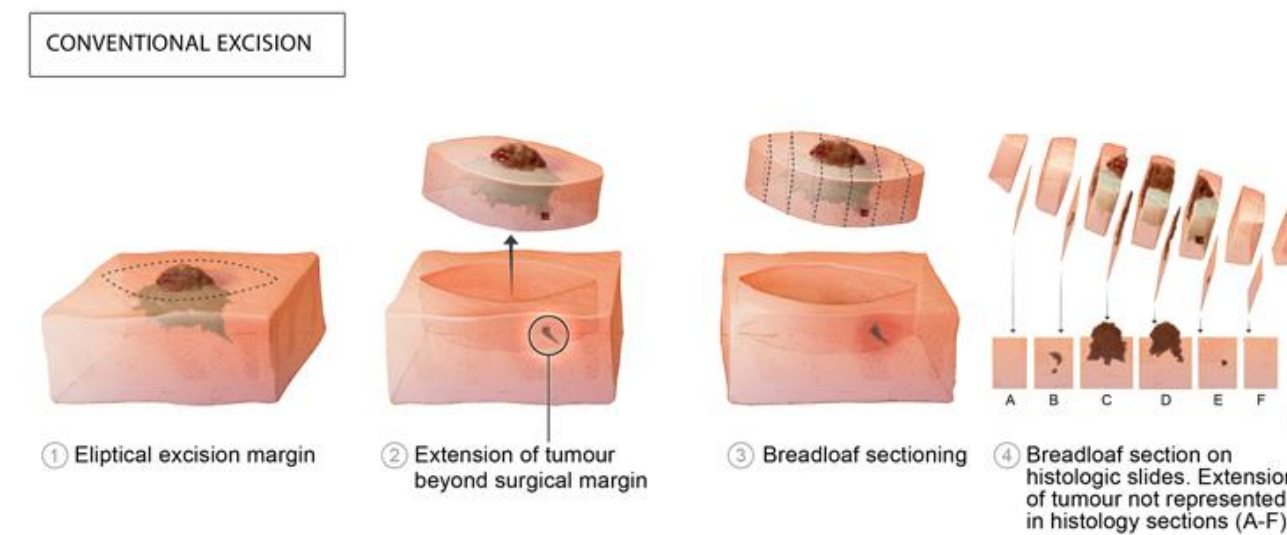
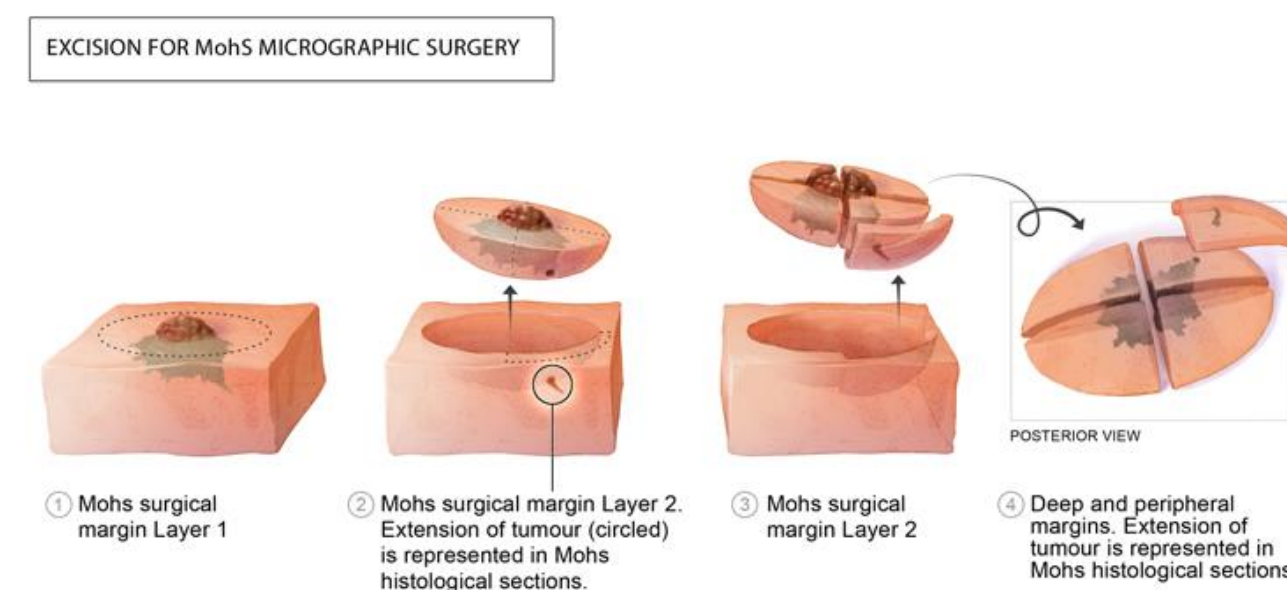


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Introduction:

Mohs Micrographic Surgery (MMS) is globally acknowledged as the gold standard for treatment of recurrent, infiltrative, large and aggressive non-melanoma skin cancers (NMSC). It achieves maximal tissue preservation, less scarring and deformity and a low recurrence rate. The United States of America (USA) is one of the advanced countries where it is widely used and has been found to be cost effective compared to the conventional excision.



© Dundee University School of Medicine, illustrated by Annie Campbell

Aim::

To review the differences in policy and cost analysis in both regions to delineate if any improvement can be achieved in the United Kingdom (UK).

Method:

A search through Pubmed, Medline, UpToDate, Embase, Google scholar and Cochrane Library was performed on MMS in the USA and UK. The articles found were reviewed and analysed.

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Results:

MMS has shown to be cost-effect in both countries as it reduces the need for elaborate surgeries due to its preservation of healthy tissues. It has however lesser burden on the USA healthcare system as most of the defects are left to heal by secondary intention compared to UK (table 1).

Types of Repair	USA	UK
Heal by secondary intention	37.9%	0.80%
Closed primarily by intermediate linear or complex closure	37.5%	58.5%
Flaps	13.8%	18.5%
Grafts	8.9%	22.1%

Table 1: Percentage of soft tissue cover post MMS in the USA and UK.

Discussion:

The USA and UK both have increase of incidence rate of NMSC of more than 50% in the last few years. The indications of MMS are broadly similar however in the USA, it is not only restricted to NMSC but for other cutaneous neoplasm as well such as Dermatofibrosarcoma Protuberans and Keratoacanthoma among many. While in the UK due to the financial constraints of the NHS it is mainly implemented for treatment of NMSC and on specific patients.

The procedure is performed in the same standardised manner in both places. This also apply for the referral pathways where primary (GP) and secondary physicians (Dermatologists or Plastic Surgeons) have a role to play.

Conclusion:

MMS can be a potential source of cost saving to the NHS as it has proven to be cost-effective. Further cost-savings can be achieved by reducing the amount of soft tissue reconstruction as in the USA, however, this demands further review of the results of the patients in the USA who received lesser post MMS reconstruction.

References:

- Annie Campbell. University of Dundee Mohs micrographic surgery. <https://www.flickr.com/photos/dundeetit/31088117871> (accessed 10 October 2018)
- Ravitskiy L, Brodland DG, Zitelli JA. Cost analysis: Mohs micrographic surgery. *Dermatol Surg* 2012;38(4):585-94.
- E Kumar, C. I. Orton, L. J. McWilliam and S. Watson . Incidence of incomplete excision in surgically treated basal cell carcinoma: a retrospective clinical audit. [https://www.jprasurg.com/article/S0007-1226\(00\)93394-0/pdf](https://www.jprasurg.com/article/S0007-1226(00)93394-0/pdf) [accessed 10 October 2018]



Poster 20: Prospective audit of breast cancer detection rates from 2WW referrals to a district general hospital during Covid-19 pandemic

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Introduction / Background

The Covid-19 pandemic caused initial chaos for breast service provision nationally.
In our hospital, the first Lockdown period was challenging in terms of assessing patients on the 2WW pathway. Management of patients detected with cancer requiring surgery as part of their cancer pathway in a timely manner, was also challenging.
This prompted a prospective audit, in our Trust. We compared cancer detection rates during Lockdown (March 2020 – May 2020) with pre-Covid cancer detection rates (Dec-2019 - Feb 2020)

Aims & Objectives

Primary Aims:

- To prospectively audit referral rates **during Lockdown** to our Breast Unit and compare with referral rates **pre-Lockdown**.
- Assess Total cancer numbers detected **during Lockdown** (1st March '20 -31st May '20) in comparison to cancer detection rates **pre Covid-19 Lockdown** (1st December '19- 28th February '20)

Secondary Aim:

- To audit the re-excision rates after primary cancer surgery, to further assess Service Delivery during Lockdown.

Objectives:

- To audit the impact of lockdown on breast cancer detection rates and our service delivery

Materials & Methods

- ❖ Prospective data was collected from Trust Somerset records :
 - _ Total cancers detected from 2WW referrals prior to Lockdown (1st Dec '19-28th Feb '20) as a guideline for workload.
 - _ Data collected during lockdown (1st March'20 – 31st May'20)
- ❖ Prospective GIRFT data for outcomes of surgery to ascertain re-operation rates.
- ❖ Trust policy, Regional & ABS guidelines adhered to during lockdown.

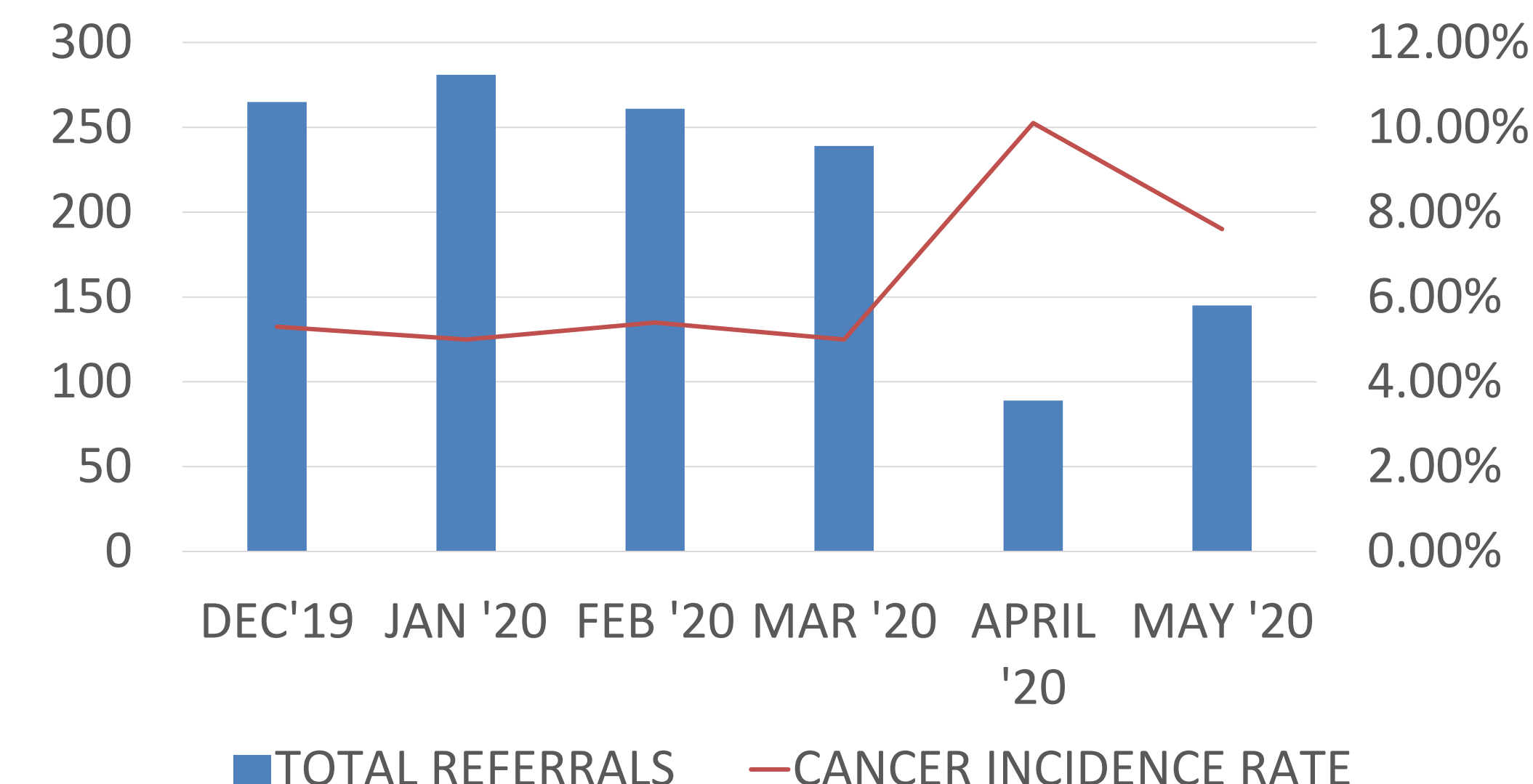
Results

Month	Total GP Referrals	Benign Diagnoses	Cancers detected	Cancer incidence Rate
December '19	265	14	14	5.3%
January '20	281	35	14	5%
February '20	261	18	14	5.4%
March '20	239	24	12	5%
April'20	89	21	9	10.1%
May '20	145	13	11	7.6%

Re-operations Dec'19-May'20

MONTH	TOTAL CANCER OPERATIONS	TOTAL MARGINS POSITIVE	TOTAL SLNB POSITIVE	AXILLARY CLEARANCE AFTER POSITIVE SLNB
DEC	28	3	0	0
JAN	40	2	1	1
FEB	24	2	3	3
MARCH	26	2	5	3
APRL	41	2	4	2
MAY	23	3	1	1

CANCER INCIDENCE RATES DURING LOCKDOWN



Discussion

- ❖ **During Lockdown, GP referrals reduced, but cancer detection rates almost doubled.** Had the quality of referrals improved?
- ❖ All patients requiring surgery had tested Covid negative pre-operatively to prevent postop complications and reduce risk to staff.
- ❖ During Lockdown,>90% benign results were discharged via telephone and written correspondence.
- ❖ Our re-operation rates were minimal and well within national limits.
- ❖ True surgical breaches were due to Complex Diagnostic Pathway/patient choice reasons only.
- ❖ This data could easily be shared with GP colleagues to encourage discerning Breast Referrals during a second lockdown.
- ❖ Benign result follow-up can be reduced by offering increasing telephone/letter discharge.

Conclusions

- Practice within our Breast Unit remained structured.
- We were able to deliver a good breast service within the restrictions imposed by social distancing and rules of Lockdown.
- In the event of a second wave of Covid-19, this data should provide a boost and also serve as a bench-mark for future cancer detection rates in our Trust.

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References

1. Association of Breast Surgery Guidelines
2. Trust Somerset Records
3. Trust Guidelines
- 4 Covid-19 DoH guidance www.gov.uk



Poster 22: The Short Term Outcome of Early Oral Feeding on Resectable Gastric Cancer Patients: A Single Centre – Single Operator Study Evaluation on Low Volume Academic Centre

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Introduction / Background

Tumor resection is gold standard for gastric cancer management. Short term outcome was one of the main parameter of surgery that can be influenced by several factors. Early oral feeding was one of the factors which could influenced the short term outcome.

Methods and Materials

This was a retrospective study, taken from January 2018 until August 2019. All resectable gastric cancer patients were included. Tumor locations, type of resection and reconstruction were evaluated. All patients had early oral feeding from the first post operative day (POD) and continued with liquid and semi solid food. The short term outcome were recorded including the presence of anastomose leakage and surgical site infection (SSI) during 30 days.

Patients Charactheristic	n
Tumor Site	
Corpus	3
Anthrurn	3
Fundus	1
Reconstruction	
Billroth II	6
Roux n Y Esofago-Jejunostomy	1
Post Op Morbidity	
Leakage Anastomosis	nil
Surgical Site Infection	nil
Pulmonary	nil

Chart 1. Patients Characteristic.

Objectives

We will evaluated the effectivity of early oral feeding on resectable gastric cancer patients in our centre.

Results

Seven patients were included, 6 patients were > 50 years old. The most common sites were corpus and anthrum (3 patients each). Partial gastrectomy and anthrectomy was done on them, total gastrectomy with roux en y esofago-jejunostomy was done on 1 patient with fundus gastric cancer. Billroth II reconstruction was our choice of procedure. All patients had early oral feeding on the first POD. They could tolerated well with no anastomosis leakage. No SSI found and no readmission associated with post operative morbidity. The types of reconstruction were not limited the efficacy of early oral feeding.

Discussion

Any controversies were still remain, whether the safety and effectiveness of early oral feeding after major gastric cancer surgery although enhanced recovery after surgery has been already announced before. According to this study, these early oral feeding safe and did not increasing the morbidity and post operative complication.

Conclusions

Early oral feeding was safe and feasible on resectable gastric cancer undergoing many types of resection and reconstruction with no unfavorable outcomes.

Keywords: *early oral feeding, gastric cancer, short term outcome*

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References

1. Gao L, Zhao Z, Zhang L, Shao G. Effect of early oral feeding on gastrointestinal function recovery in postoperative gastric cancer patients: a prospective study. J BUON. 2019 Jan-Feb;24(1):194-200. PMID: 30941970
2. Tweed T, van Eijden Y, Tegels J, Brenkman H, Ruurda J, van Hillegersberg R, Sosef M, Stoot J. Safety and efficacy of early oral feeding for enhanced recovery following gastrectomy for gastric cancer: A systematic review. Surg Oncol. 2019 Mar;28:88-95. doi: 10.1016/j.suronc.2018.11.017. Epub 2018 Nov 19. PMID: 30851919.

Abstract

The incidence of locoregional recurrence of non-small-cell (NSCLC) lung carcinoma is high¹, even in total surgical remove in the primary tumor. We report the case of a 64-years-old without comorbidly, non-smoker female patient who presented at first an adenocarcinoma in anterior segment in right anterior lobe, treated with completed extraction. After 6 years in remission, the patient was surprised with the presented of a new tumor in the same local as the earliest tumor. The histopathology showed a same cell pattern. The overall analysis from this case report allow us to see the important of clinical follow-up in oncological patient.

Keywords: Lung Carcinoma, Locoregional Recurrence, NSCLC, Adenocarcinoma, Clinical Follow-up

Introduction / Background

Nowadays, the lung carcinoma has more demises than breast, colon, prostate and lymphatic cancer all together in United States (USA) and worldwide². The operation therapy maintains as the preference choice for primary non-small-cell carcinomas of the lung³, Unfortunately the risks of having a recurrence in NSCLC after a complete resection in the first four years, stills 6 to 10%/person/year, and the treatment for this patients keeps being challenging for the medical group⁴.

Currently the option is to submit them to local radiotherapy or chemoradiotherapy, as demonstrated in the recent paper⁵, the locoregional recurrence patients who received the radiotherapy have had a better local response and prolonged the survival, the results demonstrated that the locoregional recurrences occurred in 19% of the postoperative cancer patients⁵. Also, in other study⁶, the recurrence after de complete resection occurs mostly along with distance metastases, as affirmed, the disease might be located, therefore, the response for the treatment in this stage agreed with the aforementioned, that radiation continues to be the best choice.

Although the local disease, the patients manifested symptoms caused by the carcinoma, such as hemospotum, cough, hoarseness, dysphagia, supraclavicular nodes and SVC syndrome. In the scientific publication commented previously⁵, the group formed by 32 patients, 19 of them had some of the disease-related symptoms previously written.

Thereafter, this case report will elucidate a Brazilian patient with a locoregional recurrence, after the complete surgical approach of a non-small-cell lung, who has made the followed-up and treatment with a multidisciplinary group of physicians (constituted by radiologist, oncologist, thoracic surgeon and pathologist) to decide the best strand to be taken.

Case Presentation

Case of a female patient, 64 years old, non-smoker, without comorbidly, diagnosed and treated in Baia Sul Hospital, lung carcinoma reference center in south of Brazil.

The presentation starts in June 2012, when the patient performed routine exams, that had identified a nodule in the right lung. The medical staff requested a PET-CT exam, which was observed a spiculated pulmonary nodule in anterior segment in right anterior lobe, measuring 8,6x8,6 inches - 2,2 x 2,2 cm (SUV max 4,9). It hasn't been identified lymphadenomegaly.

In July 26th, 2012: patient was committed in a thoracic surgery, performing a right superior lobe segmentectomy, superior lobectomy of the right lung and lymphadenectomy. The tumor biopsy demonstrated an adenocarcinoma predominantly acinar with solid pattern and lepidic, measuring 11 inches - 2,8cm, angiolymphatic invasion detected, lymph node chains 4, 7, 9 and 10 (0/8). Tumor staging: pT1bN0M0. Patient diagnosticated with a non-small-cell lung carcinoma (NSCLC).

As previously mentioned in background section, in tumors with a small volume, N0, tumor adhered to margins, the treatment option is the complete surgical resection.

After the surgical treatment, the patient remained in clinical follow-up with the oncologist, from 2012 to 2018.

April 13th, 2018, it was requested a follow-up thorax CT, which was demonstrated a parahilar nodule in the right lung. Staff proceeded with a PET-CT, that exhibit a focal area with an increased metabolic activity around the surgical sutures at the parahilar area in the right lung, measuring 14mm, SUV 11,6.

After a multispecialty group of physician's reunions, it was decided to continue to investigate of the nodule with a mediastinal tumor and lymph node resection of the 7th chain in June 27th, 2018. The biopsy shows a invasive adenocarcinoma with acinar pattern (70%) and invasive moderately-differentiated solid areas (30%). Perineural and angiolymphatic invasion. Bronchial invasion with the infiltration presence. Coincident margins. Lymph node chain 7 (0/1). EGFR mutation non-detected. Negative ROS-1 (6q22). PD-L1 60%. Positive ALK (FISH). Patient was diagnosed with a locoregional recurrence non-small-cell lung carcinoma.

In July 2018, the choice treatment for the carcinoma was an Intensity-Modulated Radiotherapy (IMRT) in recurrence area. After the IMRT sections, it was requested a third PET-CT, in August 8th, who had shown non-evidence of the carcinoma.

Since August 2018, the patient stays in follow-up with the oncologist, with non-evidence of the carcinoma, till the day that this publication was written.

Timeline

Woman, 64 years old, non-smoker, without comorbidly

1. June 2012: patient performed routine exams that had identified a nodule in the right lung. The medical staff requested a PET-CT exam.
 - PET-CT: spiculated pulmonary nodule in anterior segment in right anterior lobe, measuring 8,6x8,6 inches - 2,2 x 2,2 cm (SUV max 4,9). It hasn't been identified lymphadenomegaly
2. July 26th, 2012: patient was committed in a thoracic surgery, a right superior lobe segmentectomy, superior lobectomy of the right lung and lymphadenectomy.
 - Biopsy: adenocarcinoma predominantly acinar with solid pattern and lepidic, measuring 11 inches - 2,8cm. Angiolymphatic invasion detected. Lymph node chains 4, 7, 9 and 10 (0/8). Tumor staging: pT1bN0M0.
 - Diagnosticated with NSCLC
3. 2012 – 2018: clinical follow-up
4. April 13th, 2018: requested CT of the thorax, which was detected a nodule, right parahilar area in the right lung
 - Requested PET-CT: focal area with an increased metabolic activity around the surgical sutures at the parahilar area in the right lung, measuring 14mm, SUV 11,6
5. June 27th, 2018: mediastinal tumor and lymph node resection of the 7th chain.
 - Biopsy: invasive adenocarcinoma with acinar pattern (70%) and invasive moderately-differentiated solid areas (30%). Perineural and angiolymphatic invasion. Bronchial invasion with the infiltration presence. Coincident margins. Lymph node chain 7 (0/1). EGFR mutation non-detected. Negative ROS-1 (6q22). PD-L1 60%. Positive ALK (FISH)
 - Diagnosticated with locoregional recurrence NSCLC
6. July 2018: Intensity-modulated radiotherapy (IMRT) in recurrence area
7. August 8th, 2018: requested a PET-CT, which had non- evidence of the carcinoma
8. Nowadays, the patient is in follow-up since August 2018, with non-evidence of the carcinoma.

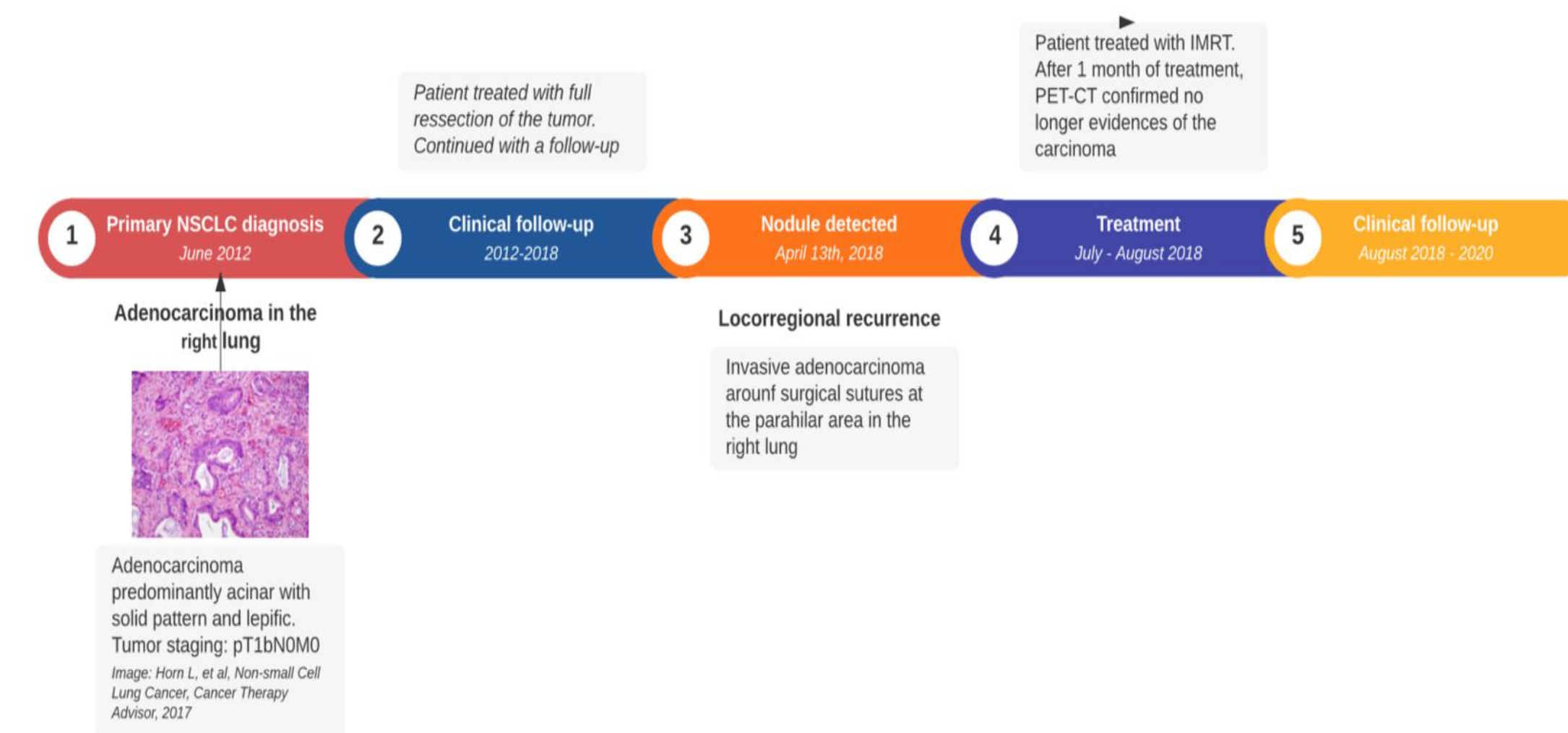


Figure 1. Timeline.

Discussion

In this case report, it was exemplified a lung cancer case, that after 6 years of resection, had a recurrence, in same locations that the patient was submitted for the carcinoma extraction, having a brief review in the NSCLC recurrence, the symptoms that can open the case, the best strategies the staff can offer the important of the follow-up in oncologic patients.

Reported for the first time in 1994 that the recurrence way doesn't differ the pathological stage in the surgical moment. Mainly, the first recurrence local is in distance organs, such as brain, bones and lung, frequently with limited metastasis, as well as in number or organs.

The local recurrence is defined as a recurrent disease in the ipsilateral hemithorax and mediastinum, excluding the pulmonary lesions. Previously, the recurrence after a total extraction surgery of the carcinoma was seen as a local failure of the treatment. Nowadays, the medical community knows the possibility that the tumor has to return to the same place previous located or in other organs, calling and diagnosing this as recurrence tumor. For the oligometastatic disease, the characteristic is to have a quite heterogeneous concept, normally embraces from 3 to 5 places of metastatic disease.

The therapeutic strategy adopted for this recurrence carcinoma was the Intensity-Modulated-Radiotherapy (IMRT)⁷, the major player on the sharp resolution of the disease previously described. The goal in this treatment is to concentrate the biggest possible radiation dose in the volume target, having more efficiency and less tissue damage than the 3D conformal RT, minimizing the side effects of the treatment. In a study with NSCLC patients with postoperative locoregional recurrence, the 2-year OS, PFS, LRFS and DMFS rates were respectively 84.2, 42.5, 70 and 50.9%⁸, demonstrating that the radical radiotherapy used with IMRT was effective. Offering the dose escalation, the literature shows that this strategy reduces lung toxicity compared to others, increasing the lung V5 in half of the patients tested in the study⁹.

Wherefore, the locoregional recurrence pos-surgery can be controlled by the RT, chiefly when it has the characteristic of being a small tumor, these patients there is a higher chance of persisting located without hematogenic metastasis. When consider able, the surgical approach can be a choice of treatment.

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References

1. Fan C et al, Risk factors for locoregional recurrence in patients with resected N1 non-small cell lung cancer: a retrospective study to identify patterns of failure and implications for adjuvant radiotherapy, Radiation Oncology, 2013, vol. 8, no 286.
2. Siegel RL, Miller KD, Jemal A. Cancer Statistics, 2017. CA Cancer J Clin 2017;67:7-30. 10.3322/caac.21387
3. Vyfhuis MA, Rice S, Reirradiation for locoregionally recurrent non-small cell lung cancer, J Thorac Dis. 2018 Aug; 10(Suppl 21): S2522–S2536.
4. Ma L et al, Survival and prognostic factors of non-small cell lung cancer patients with postoperative locoregional recurrence treated with radical radiotherapy, Chinese Journal of Cancer volume 36, Article number: 93 (2017)
5. Yano T et al. J Thorac Cardiovasc Surg 1994; 107: 8-12.
6. Okami J et al. J Thorac Oncol. 2013; 8: 1417–1424
7. Nakamichi S et al. Clinical Lung Cancer, 2017; Vol. 18, No. 6, e441-8
8. Ma Li et al. Survival and prognostic factors of non-small cell lung cancer patients with postoperative locoregional recurrence treated with radical radiotherapy, Chinese Journal of Cancer, 2017; 36: 93. doi: 10.1186/s40880-017-0261-0
9. Cox J et al. Image-Guided Radiotherapy of Lung Cancer, 2008, 132-134



Poster 35: The differences in approaches to diagnosis and management of urological cancers between the UK, Europe and the US during the COVID-19 pandemic

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2020 BASO Annual (virtual)
Meeting
21st – 23rd Nov

INTRODUCTION

At the peak of the COVID-19 pandemic many urological cancer diagnostic and management services were significantly restricted.

The impact on patient care has been immense and the decision-making around how to manage urological cancers has been complex.

Guidelines have been produced during the peak of the pandemic to adapt cancer pathways in order to limit the effects of COVID-19 on cancer patients.

However, the guidelines have been in a continual state of adaptation and it is clear that guidance has varied internationally.

OBJECTIVES

Our aim was to compare the COVID-19 specific guidelines on the diagnosis and management of the main urological cancers.

We investigated the differences in approach between the UK, Europe and the US with a view to assessing the long term impact of these differences.

METHODS

We used various urological institutions to represent the different regions.

For the UK, the British Association of Urological Surgeons (BAUS) [1]. For Europe, the European Association of Urology (EAU) [2]. For the US, the Cleveland clinic recommendations [3].

We qualitatively evaluated and compared the guidelines for the main urological cancers.

These included upper tract urothelial, prostate, bladder and kidney cancer.

RESULTS

Across all urological cancer-types the UK favoured more of a conservative approach compared with Europe.

The US used more aggressive strategies than both Europe and the UK.

The US were more likely to advocate surgical intervention.

DISCUSSION

We have found that there has been significant variance in the diagnosis and management of patients with urological malignancy globally throughout the COVID-19 pandemic.

The UK favoured a conservative approach and the US more likely to opt for surgical intervention.

The long-term consequences in these changes to practice are unknown. Further study is needed into why there exists such differences and how we can work together, internationally, to formulate agreed upon diagnosis and management strategies.

Cohort studies will be also be needed to compare long-term outcomes of these differing approaches to diagnosis and management.

CONCLUSIONS

It is clear that the diagnosis and management of urological cancers during the COVID-19 pandemic differs internationally.

It is our hope that lessons can be learned from the first wave of the COVID-19 pandemic as the UK now enters the second wave.

As we face another re-structuring of cancer services we can be better equipped through international collaboration to prioritise services appropriately and safely.

This can ensure that patient pathways receive as little disruption as possible and cancers are not allowed to progress beyond the realms of treatment.

REFERENCES

- [1] British Association of Urological Surgeons (BAUS). COVID19: Members' information, <https://www.baus.org.uk/default.aspx> (2020, accessed 6 July 2020).
- [2] Ribal MJ, Cornford P, Briganti A, et al. European Association of Urology Guidelines Office Rapid Reaction Group: An organisation-wide collaborative effort to adapt the European Association of Urology guidelines recommendations to the coronavirus disease 2019 era. *Eur Urol* 2020; 78: 21–28.
- [3] Goldman HB and Haber GP. Recommendations for tiered stratification of urological surgery urgency in the COVID19 era. *J Urol* 2020; 204: 11–13.

Upper Tract Urothelial Carcinoma		UK: BAUS	EUROPE: EAU	US: Cleveland Clinic
Low risk	Diagnosis	Imaging	Imaging + Biopsy	
	Treatment	Defer	Surgery by 3 months	
High risk	Diagnosis	Imaging	Imaging + Biopsy	Surgery
	Treatment	Surgery	Radical surgery	
Metastatic	Treatment	Palliative radiotherapy	Palliative radiotherapy	Offer palliative surgery

Prostate Carcinoma		UK: BAUS	Europe: EAU	US: Cleveland Clinic
Low risk	Diagnosis	PSA + Imaging	PSA + Imaging + Biopsy	Surgery by 3 months
	Treatment	Surveillance	Surveillance + Biopsy	
Intermediate risk	Diagnosis	Biopsy	Biopsy	Biopsy
	Treatment	Hormone therapy	Hormone therapy + Radiotherapy	Surgery by 1 month
High risk	Diagnosis	Imaging	Imaging + Biopsy	Biopsy
	Treatment	Hormone therapy	Hormone therapy + Radiotherapy	
Metastatic	Treatment	Hormone therapy	Hormone therapy	

Bladder Carcinoma		UK: BAUS	EUROPE: EAU	US: Cleveland Clinic
Low risk	Diagnosis + Treatment	Defer	Defer by 6 months	Defer by 1 – 3 months
	Diagnosis + Treatment	Defer	Defer by 3 months	Defer by 1-3 months
High risk	Diagnosis	Emergency care	Imaging + Cystoscopy	Emergency care
	Treatment	Restricted surgery	Surgery by 6 weeks	Surgery
Muscle invasive / Metastatic	Diagnosis	Imaging	Imaging	
	Treatment	Radiotherapy	Radical surgery	Radical surgery

Renal Carcinoma		UK: BAUS	EUROPE: EAU	US: Cleveland Clinic
Low risk	Diagnosis	Defer imaging by 6-9 months	Defer imaging by 6 months + Biopsy	
	Treatment	Surveillance	Defer by 6 months	Defer by 3 months
Intermediate risk	Diagnosis	Defer imaging by 3-6 months	Imaging	
	Treatment	Defer	Defer by 3 months	Defer by 1-3 months
High risk	Diagnosis	Urgent assessment	Imaging + Biopsy	
	Treatment	Surgery	Surgery	Surgery
Metastatic	Treatment	Surveillance or Chemotherapy	Defer by 6 months or Chemotherapy	

UK



The British Association
of Urological Surgeons

Europe



European Association of Urology

US



Cleveland Clinic

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Poster 39: Management of patients with retroperitoneal masses - A 10-year experience of the Department of Surgery of University Hospital of Patras

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¹General University Hospital of Patras



Introduction

Retroperitoneal masses are a rare but important group of neoplasms that pose a diagnostic challenge for medical physicians. Most of them are malignancies and are more prevalent in adults. However, they can occur at any age. Failure to recognize them on imaging can lead to inappropriate management. The most common subtypes of retroperitoneal malignancies are liposarcoma (70%) and leiomyosarcoma(15%), which have characteristic imaging appearances. We report herein our experience of 10 years of surgical management of retroperitoneal masses.

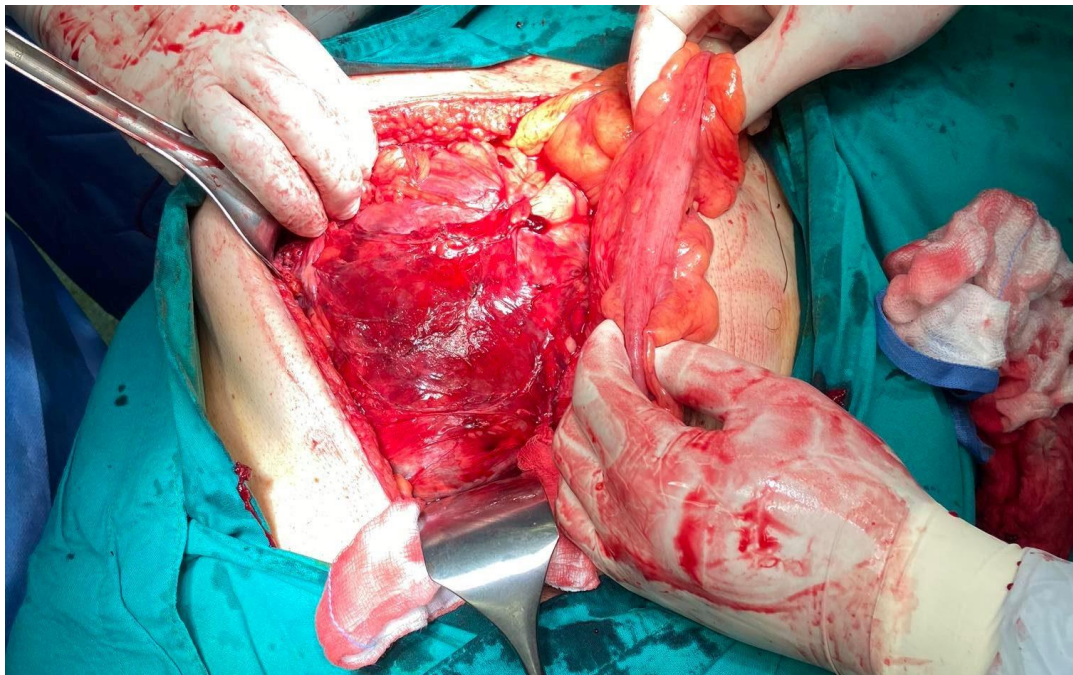


Figure 1. 62-year-old man with recurrent retroperitoneal liposarcoma; Laparotomy with midline incision was approached. The resection of the retroperitoneal mass was 19x17x16 cm.

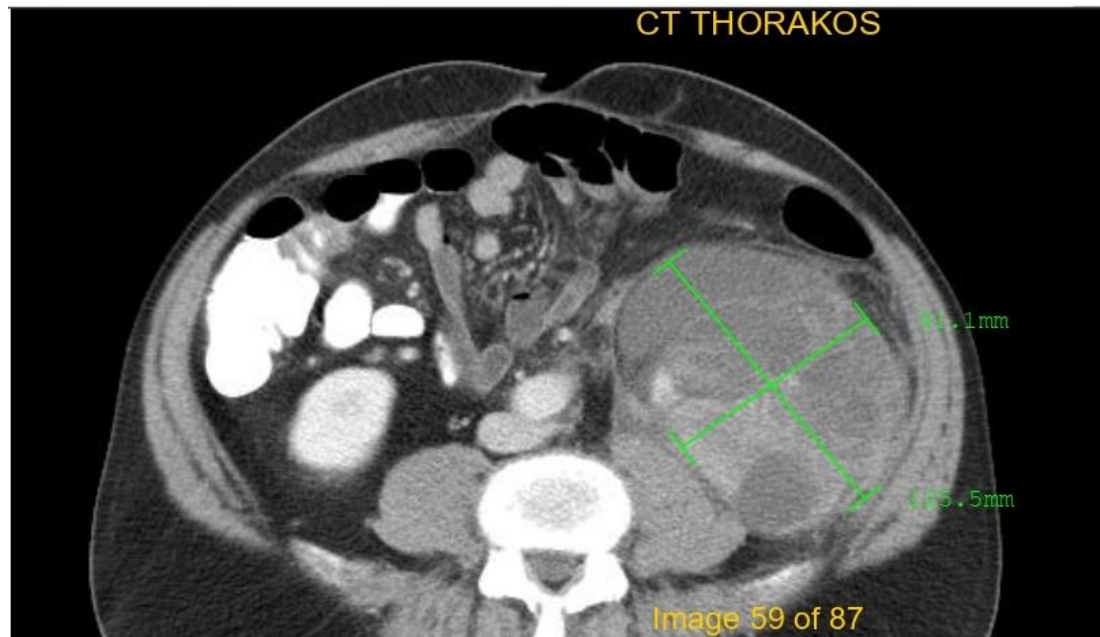


Figure 2. 62-year-old man with recurrent retroperitoneal liposarcoma; CT scan shows soft-tissue mass in retroperitoneum. Longest diameter is 12.5 cm

Methods and Materials

We evaluated 31 patients with retroperitoneal masses operated in our department from August 2010 till July 2020 with regard to patients’ demographic characteristics, intra-operational time, the location and size of tumor, histological grade and local recurrences.

Results

The mean age of patients was 54 years (range, 18 to 85). Fourteen (45.16%) were female, and seventeen (54.84%) were male. The mean intra-operational time was 214 minutes (range, 65 to 720 minutes). Four patients (12.90%) were reported to have benign tumors, while 27 (87.10%) were reported to have malignancies. The most frequent malignant tumor was liposarcoma. The mean tumor size was detected 13.87 cm. The earliest local recurrence was detected in the 9th month and the latest in the 48th month.

Retroperitoneal masses

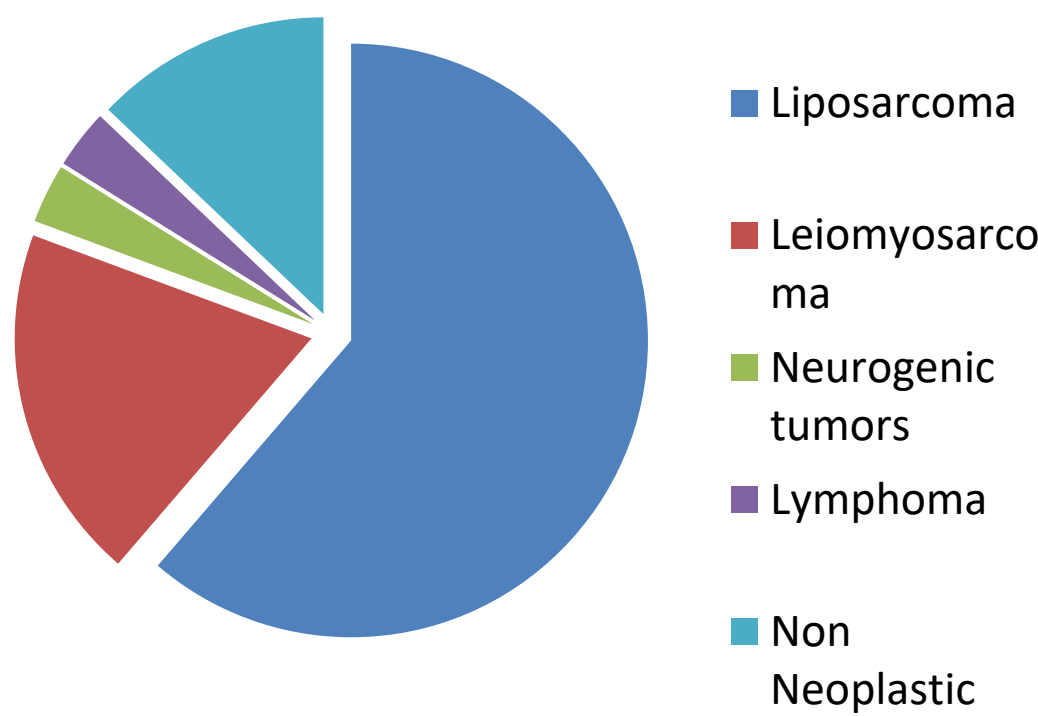


Chart 1. Retroperitoneal masses in 31 patients.

References

- 1)Trans-Atlantic RPS Working Group. Management of Recurrent Retroperitoneal Sarcoma (RPS) in the Adult: A Consensus Approach from the Trans-Atlantic RPS Working Group [published correction appears in Ann Surg Oncol. 2017 May 11;:]. *Ann Surg Oncol.* 2016;23(11):3531-3540. doi:10.1245/s10434-016-5336-7
- 2) Mulita F, Parchas N, Germanos S, Papadoulas S, Maroulis I. Case Report of a Local Recurrence of Spindle Cell Embryonal Rhabdomyosarcoma. *Med Arch.* 2020 Jun;74(3):240-242. doi: 10.5455/medarch.2020.74.240-242. PMID: 32801444; PMCID: PMC7406004.

5 years after the first resection

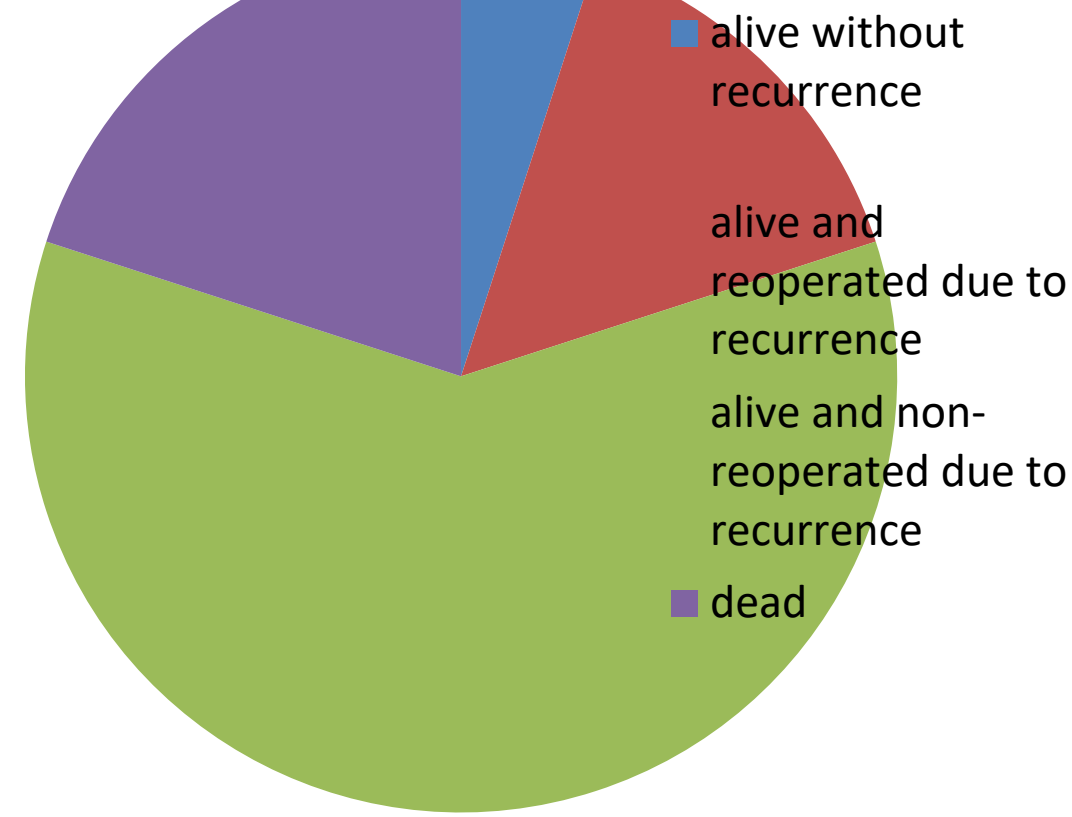


Chart 2. Follow-up in patients after the first resection

Discussion

Out of 31 patients who were operated for retroperitoneal mass, follow up was performed in 20 patients. 15 of these 20 patients (75%) had a local recurrence, whereas 4 of them (20%) where not alive.

Conclusion

Retroperitoneal masses are rare and the majority of them are malignancies. Early recognition is very important and complete surgical resection in high-volume centers is the best remaining treatment option.

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Poster 40: Two decades of experience with sentinel node staging of axilla – is false negative no longer a worry ?

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Manchester Foundation Trust NHS

2020 BASO Annual (virtual)
Meeting
21st – 23rd Nov

Introduction / Background

Axillary conservation is the way forward after game changing trials like ACOSOG Z0011, surrogate trials like IBCSG,AMAROS, ALMANAC, on-going POSNOC, and newbie ATNEC have decreased the need to fiddle with the axilla. C
Current standard is the utilisation of double technique with radioisotope and blue dye to decrease false negative rates for true sentinel node retrieval.

Methods and Materials

Literature search on the topic in the last two decades.

Accuracy of SNB in early breast cancer

Study	Year	SLN IR(%)	Sensitivity(%)	False negative(%)
Veronesi	2003	98.5	91.2	8.8
ALMANAC	2006	98.0	93.3	6.7
Sentinella-GIVOM	2008	95.0	83.3	16.7
SNAC	2009	94.0	94.5	5.5
Canavese	2008	98.6	77.1	9.1
NSABP -32	2007	97.3	90.2	9.8

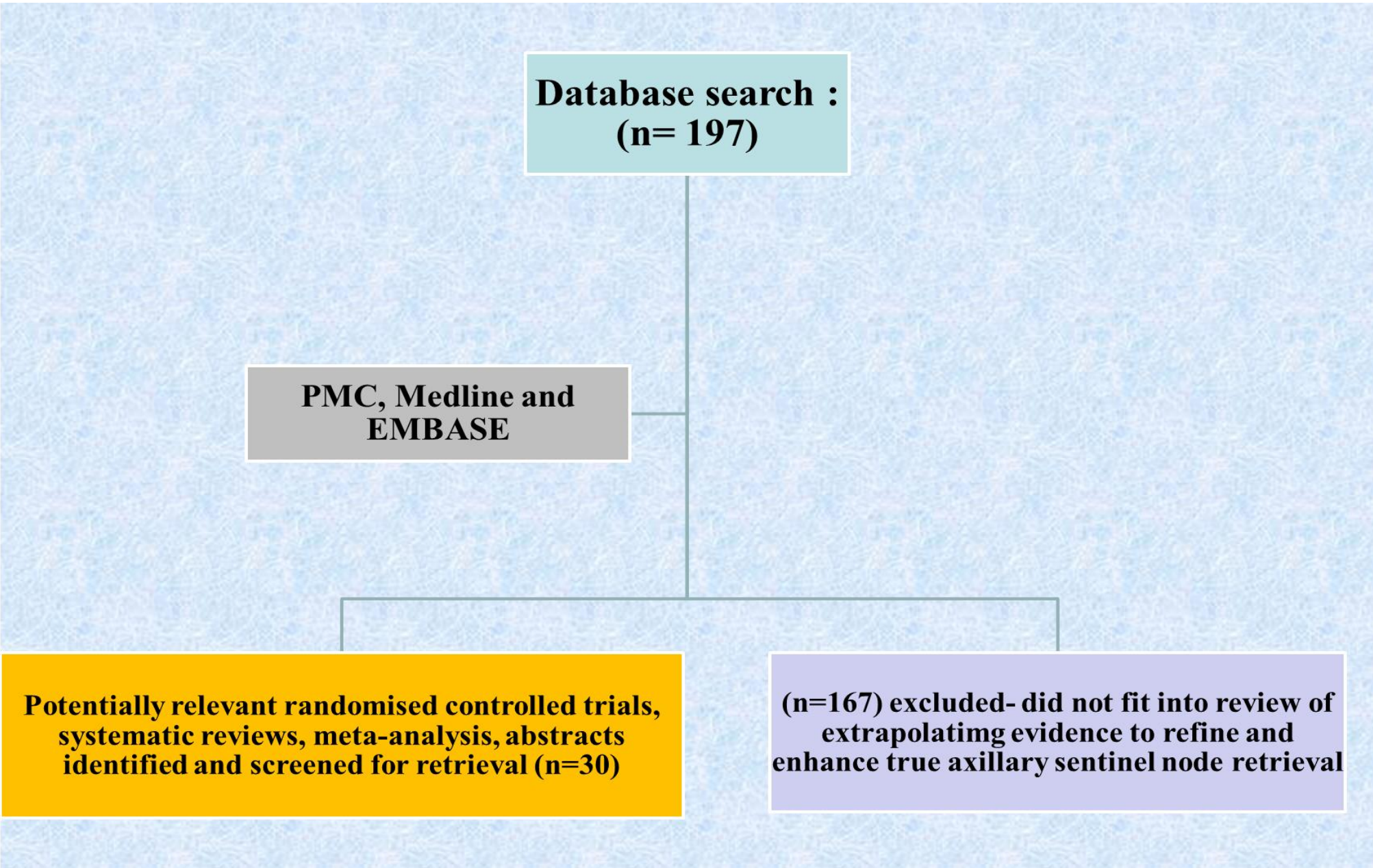


Chart 1 Literature search and study inclusion

Results

The search yielded 197 publications which were subjected to a meticulous review and to extrapolate suggested guidance.

Conclusions

Recommendation 1 Single agent

- 1.1. Single agent technique should be standardised – preferably radioactive isotope (RI) in palpable good tumour biology and normal BMI cohort.
- 1.2. Single agent blue dye (BD) technique should be considered for axillary tail tumours.
- 1.3. Single agent blue dye can be considered for true sentinel node retrieval during COVID pandemic or challenging nuclear medicine logistics in a smaller unit.

Recommendation 2 Dual agent

- 2.1. Dual agent technique is recommended for high BMI, grade 3 ptosis / macromastia and previously treated breast and axilla.
- 2.2. Dual technique is already validated in NACT cohort axillary staging in breast cancer by ABSGBI (Gandhi et al ,2019)
- 2.3. Magnetic tracers can aid axillary staging in combination with RI or BD.

Recommendation 3 Triple site injection

- 3.1. Triple site injection of agents – peri-tumoral (PT). intradermal (IT) and sub areolar (SA) should be considered in high BMI, macromastia and previously treated breast and axilla groups to enhance true SN retrieval.

Recommendation 4 Troubleshooting

- 4.1. Low axillary sampling (Parmar et al) is recommended for trouble shooting with any agent technique, with retrieval of no more than three nodes to conserve the axilla.
- 4.2. Suspicious axillary nodes, intraoperatively, should be retrieved irrespective of agent localisation.
- 4.3. Do not remove all hot, all blue, all brown or all palpable nodes.
- 4.4. Consider larger volume of agent injection in macromastia / grade3 ptosis or high BMI group to increase yield of true SN for axillary staging.

Recommendation 5 Optimal timing

- 5.1 Recommended optimal timing of agent injection is on the day of surgery for best results.

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References

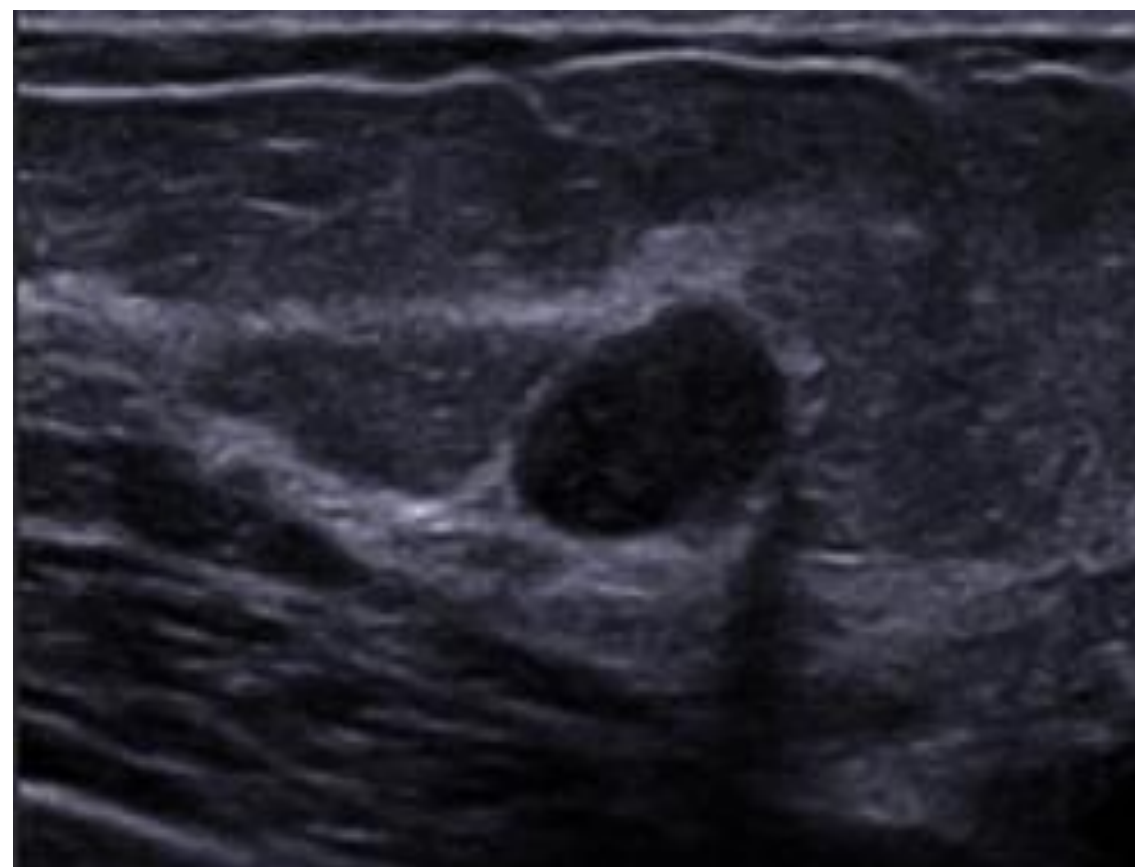
- 1.National Institute for Health and Care Excellence. Early and locally advanced breast cancer: diagnosis and management. London, England: NICE; 2018 JulJ
- 2.Mamounas Optimal Management of the Axilla: A Look at the Evidence Eleftherios (Terry) P. Mamounas, MD, MPH
- 3.Klimberg VS, Rubio IT, Henry R, Cowan C, Colvert M, Korourian S. Subareolar versus peritumoral injection for location of the sentinel lymph node. Ann Surg 1999;229:860-4.
- 4.Linehan DC, Hill AD, Akhurst T, Yeung H, Yeh SD, Tran KN, et al. Intradermal radiocolloid and intraparenchymal blue dye injection optimize sentinel node identification in breast cancer patients. Ann Surg Oncol 1999;6:450-4.
- 5.Karakatsanis A, Christiansen PM, Fischer L, Hedin C, Pistioli L, Sund M, et al. The Nordic SentiMag trial: a comparison of super paramagnetic iron oxide (SPIO) nanoparticles versus Tc(99) and patent blue in the detection of sentinel node (SN) in patients with breast cancer and a meta-analysis of earlier studies. Breast Cancer Res Treat. 2016;157(2):281–294. doi: 10.1007/s10549-016-3809-9.

Introduction / Background

To introduce a non –biopsy protocol in our department for benign breast lump referrals confirmed as typical U2/3 fibroadenoma on imaging in 25-29 yrs cohort.

Objectives

The cohort of women between 25-29 years of age with sonographic features (Maxwell non-biopsy criteria) U2/3 typical of fibroadenoma does not miss malignancy.
Current UK guidance is not to biopsy sonographically typical fibroadenomas in women under 25 years.
We have studied our population extending the radiological Maxwell criteria reflecting histologically benign outcomes even in this group of 25-29 years.



Maxwell's criteria/Sonographic features:

1. Well-defined, ovoid shape
2. Flat lesion, ie Height < Width
3. <3cm dimension
4. Smooth outline / Gently lobulated (2-3 lobulations)
5. Homogeneously isoechoic or slight hyperechoic, solid
6. Thin echogenic pseudocapsule
7. No calcification.
8. No posterior acoustic shadowing.

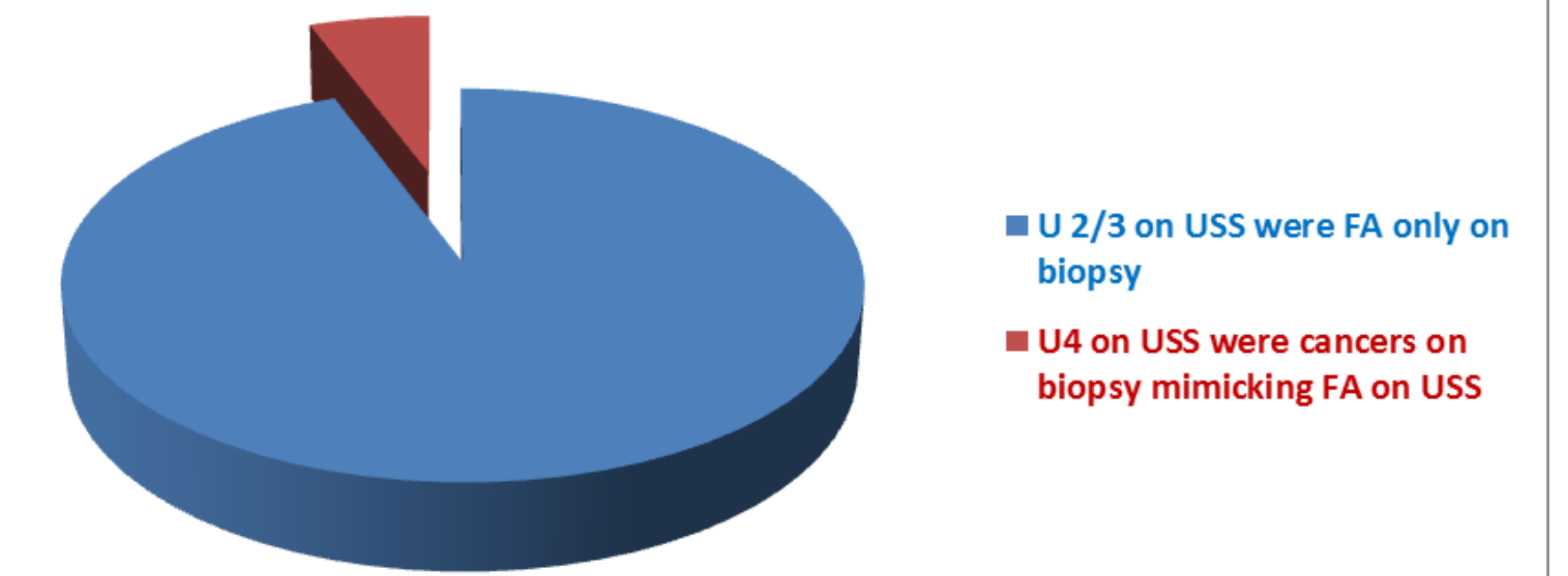
Methods and Materials

- Retrospectively data was collected of all women between 25-29 years of age undergoing core biopsies for ultrasound confirmed both simple and complex fibroadenomas at Clatterbridge General Hospital between 2014 and 2019 over a period of five years.
- The number of cancers picked up was compared with the number of referrals and the discordance between radiological diagnosis of fibroadenoma and histopathological confirmation of malignancy was recorded.

Details of the nine carcinomas found in women less than 30 years of age.

Case	Age (years)	Clinical	Ultrasound	Comments
1	28	Not known	Not known	Previous contralateral breast cancer at age 22 years
2	28	Suspicious	Not performed	
3	28	Not known	Solid mass (indeterminate)	Previous radiotherapy
4	22	Not known	Not known	Bilateral disease (impalpable on other side) Li Fraumeni syndrome
5	28	Suspicious	Ill defined mass (malignant)	Previous radiotherapy
6	28	Probable fibroadenoma (benign)	Two ovoid microlobulated masses (probably benign)	Stavros criteria not met
7	26	Suspicious	No discrete mass (probably benign)	
8	29	Indeterminate	Malignant	
9	27	Indeterminate	Malignant	

n=175



Results

We saw increment in referrals in this group of young women from n=260 to n=386 over the five year study period. A total of 1707 referrals were made across five years. n =175 image guided core biopsies were carried out for U2, U3 , U4 lesions appearing as fibroadenomas on ultrasound. Out of these (n= 175), all lesions coded U2/3 (n=165) based on Maxwell criteria on ultrasound were negative for cancer. U4 lesions on ultrasound were confirmed as cancers mimicking fibroadenomas (n=10).

Conclusions

- This retrospective audit of 1707 patients provides sound evidence for safe non-biopsy of typical fibroadenomas in women 25–29 years when clinical and sonographic features meet strict criteria.
- We started using the non-biopsy protocol using Maxwell criteria for U2/3 lesions. We discharged women in this group if they met all the protocol criteria, i.e., their lesion does not appear suspicious clinically, has all the ultrasound appearances typical of a fibroadenoma U2/3 , and they do not have any compounding circumstances (e.g., family history, genetic predisposition).
- As routine, we advise all women who are discharged without follow-up to examine their breasts regularly and return if they detect any changes including increase in lesion size.
- We need data to be audited prospectively and provide level 1 evidence to the same effect.

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References

Maxwell AJ, Pearson JM. Criteria for the safe avoidance of needle sampling in young women with solid breast masses. Clin Radiol. 2010 Mar;65(3):218-22. doi: 10.1016/j.crad.2009.11.009. Epub 2010 Jan 4. PMID: 20152278.

Poster 42: Game changing magnetic experience in rural and urban Wirral peninsula - Our experience with Magseed localisation of impalpable breast tumours and axillary nodes.

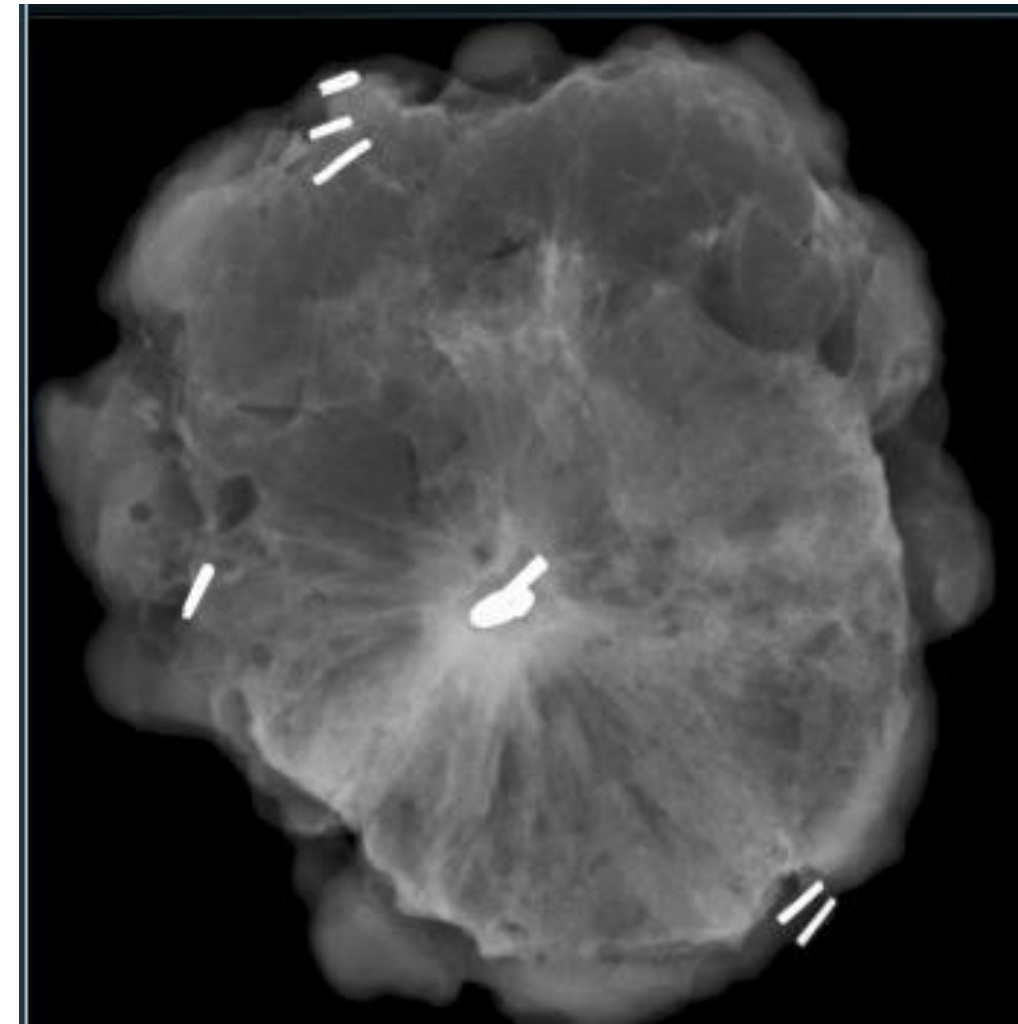
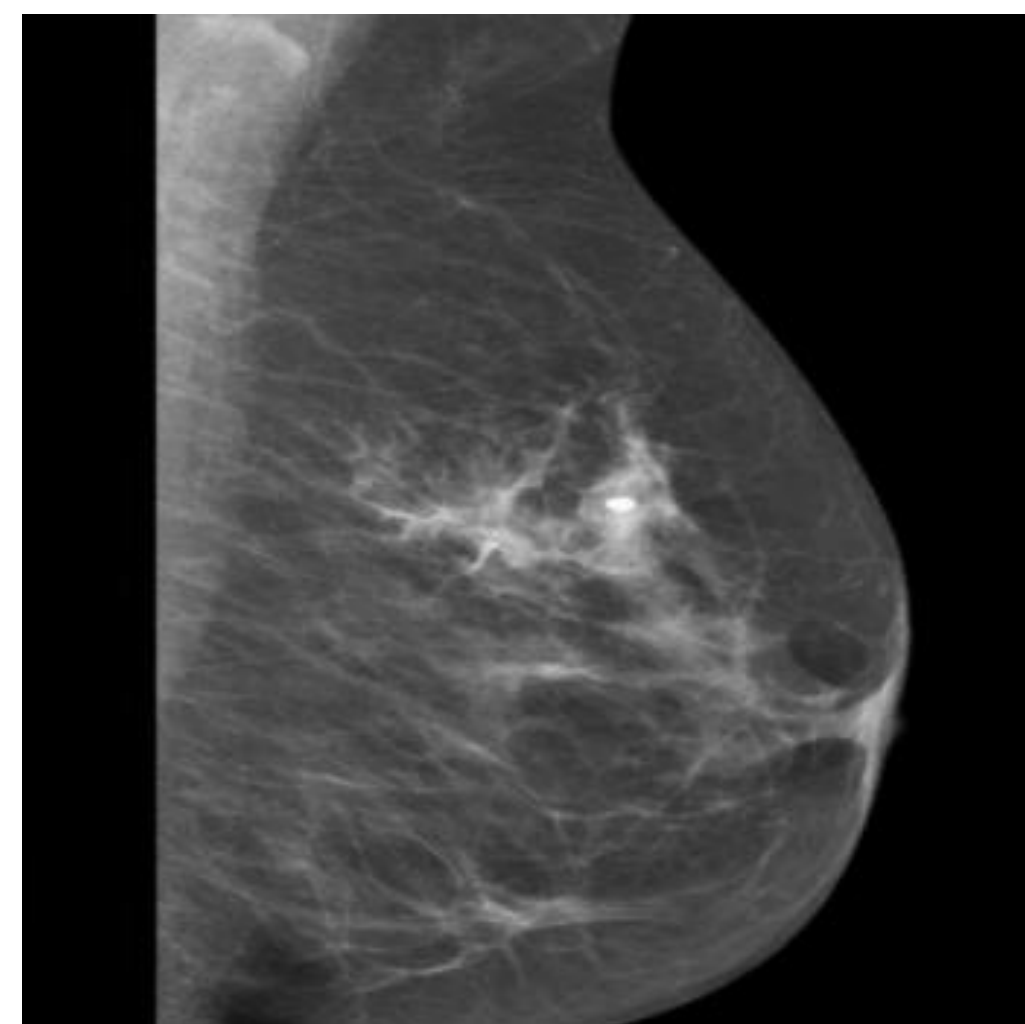
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Introduction / Background

Magseed is a novel localization technology in which a tiny seed is inserted to accurately mark the site of breast tumour. These can be detected intra-operatively by sentimag localization system. These can be implanted days prior to surgery and do not require use of radioactive material. It aids localization of impalpable breast lesions improving margin clearance rates.



**Sentimag
detector system**



Magseed on pre-operative MLO mammogram. Specimen radiograph (on the right) confirmed retrieval of target biopsy clip and Magseed.

Methods and Materials

A study was undertaken of 50 patients undergoing Magseed localization of non-palpable breast lesions in rural and urban areas of Wirral Peninsula in the UK. Data including age, mode of localization (Stereo-guided/ Ultrasound guided), presentation (Symptomatic/Screen detected), and time to surgery after localization, size and weight of specimen, histology and re-excision rates was collected between June 2019 and November 2019.

Results

A total of 50 patients had 52 Magseed inserted. n=14 were symptomatic, n=35 were screen detected and n=1 was an incidental finding on surveillance mammogram for a B3 lesion. All 50 patients had therapeutic surgery. 30 seeds were inserted on the right and 22 were inserted on the left (two were bilateral). 44 seeds were inserted under Ultrasound guidance and the rest were targeted under stereo guidance (n=8). Deployment of 2 Magseed resulted in malposition requiring wire localization. Mean age of subjects was 59.76 (range 31-81) years. Mean time to surgery after Magseed insertion was 8.04 (range 1-27) days. Mean weight of the specimen was 48.57(range 10-264) gm. Mean size of the lesions was 20.32 (range 8-65) mm. Redo surgery for margin clearance was performed bringing the re-excision rate to 15.38% (n=8).

Conclusions

We conclude that Magseed localization of breast tumours is a safe and reliable technique in terms of accuracy, localization and clearance of margins without any radiation concerns. Our re-excision rate for margin clearance is comparable to the national average. The only caveat we observed was localization of impalpable lesions prior to surgery in bulky breasts where we had to utilize wire guided localization on the day of surgery. Large scale data are lacking to compare Magseed localization with other localization techniques for non-palpable breast lesions.

Discussion

- Using magnetic seeds for localization can avoid well-known disadvantages of wire localization, which include displacement of the wire, technical difficulties during surgery and more importantly inconvenience to patients. Also, as wire placement occurs on the day of surgery, it can create capacity issues with radiology, and also theatre list scheduling.
- Alternative methods such as Iodine (125I) radioactive seed localization (RSL) and Radio Occult Lesion Localisation (ROLL) proved to be reliable and are used in number of centres. Despite the effectiveness of these techniques the nuclear medicine regulatory requirements have limited their widespread implementation.
- Magseed system can overcome these limitations whilst achieving comparable effectiveness. Limitations to this novel method include technical difficulties encountered in extremely deep lesions. Another challenge is that ferromagnetic instruments will interfere with the signal, so special non-ferromagnetic surgical instruments are necessary.
- Electrocautery or other metallic equipment in the operating room can also interfere with the signal, requiring recalibration of the probe.
- There is a learning curve for both the radiologists and surgeons during the early period.
- We will continue auditing our work and also participate in the national audit of Magseed localization (iBRA-net).

Contact

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1. Harvey, JR.; Lim, Y.; Murphy, J.; et al. Safety and feasibility of breast lesion localization using magnetic seed system for preoperative breast lesion localization. American Journal of Roentgenology 2018, 210(4), 9magnetic seeds (Magseed): a multi-centre, open-label cohort study. Breast Cancer Res Treat. 2018, 169(3), 531–536
2. Yeung, S.; Farrah, K., Magnetic seed localization for soft tissue lesions in breast patients: Clinical effectiveness, cost-effectiveness, and guidelines. Ottawa: CADTH 2019, 1922-8147
3. Price, E.; Khoury, A.; Esserman, L.; Joe, B.; Alvarado, M., Initial Clinical Experience with an inducible 13-917
4. Zacharioudakis; Konstantinos; et al. Is the future magnetic? Magseed localisation for non-palpable breast cancer. A multi-centre non-randomised control study. European Journal of Surgical Oncology 2019, 45(11), 2016-2021
5. Jeffries, D.; Dossett, L.; Jorns, J., Localization for breast surgery: The next generation. Archives of Pathology & Laboratory Medicine 2017, 141(10), 1324-1329



Poster 44: Appendix tumors in patients undergoing appendectomy for appendicitis: A retrospective study

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Introduction

Primary cancers of the appendix are very rare and most of them are usually found accidentally on appendectomies performed for appendicitis. Although these tumors are rare, there is a diverse histology.

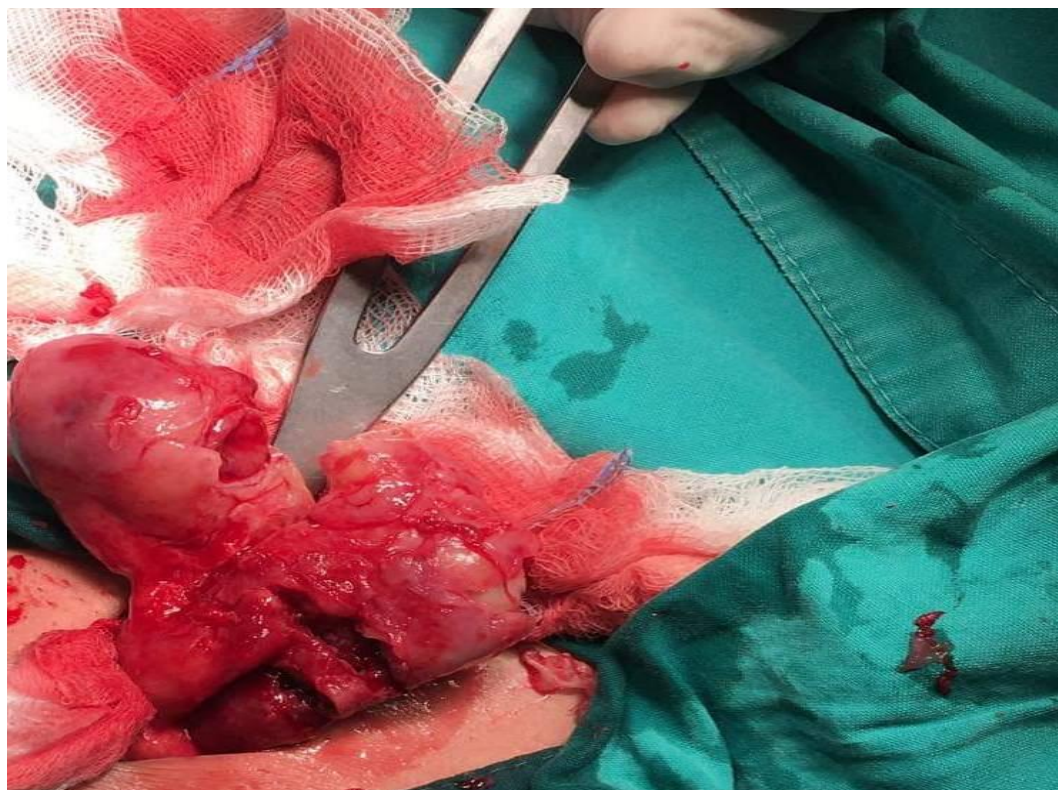


Figure 1. Open appendectomy through a right lower abdominal incision

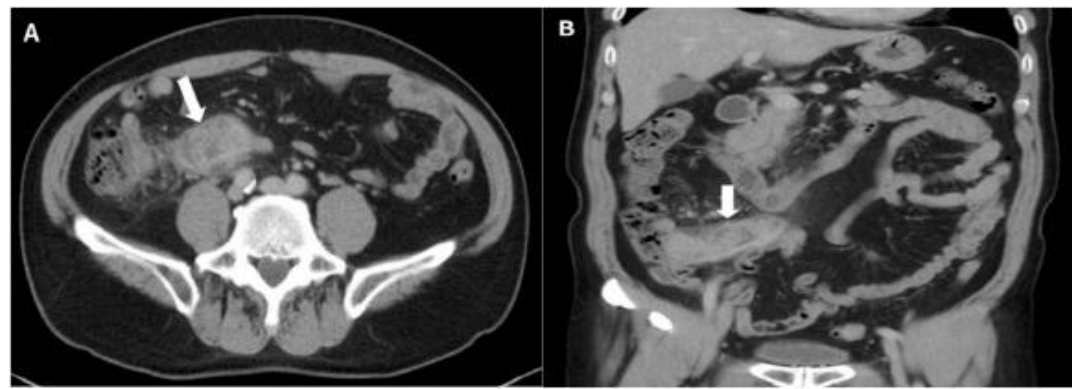


Figure 2. An appendix adenocarcinoma mimicking appendicitis

Methods and Materials

We conducted a single-centre retrospective study of patients undergoing appendectomy at our institution for the suspended diagnosis of appendicitis. From January 2003 to December 2018 a total of 1809 patients underwent appendectomy under general anesthesia. Patient demographics, type of procedure and tumor histology were recorded.

Results

The mean age of patients was 32 years (range, 14 to 85). Of these patients 821 (45.38%) were female, and 988 (54.62%) were male. In total 959 (53.01%) underwent laparoscopic appendectomy and 850 (46.99%) underwent open appendectomy. Appendiceal neoplasm was found in 17 patients (0.94%). Of these 17 patients 4 (23.53%) were reported to have benign tumors, while 13 (76.47%) were reported to have malignancies. The most frequent appendiceal tumor was carcinoid, which was detected in 10 patients (58.82%)..

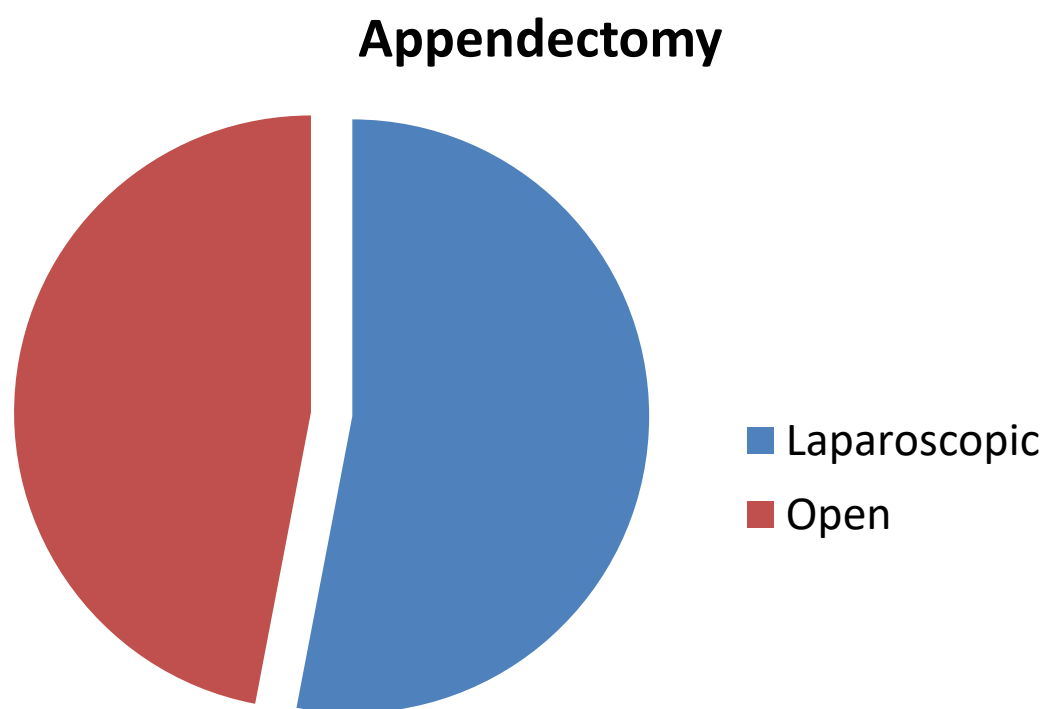


Chart 1. Method of appendectomy.

References

- 1) Kelly KJ. Management of Appendix Cancer. *Clin Colon Rectal Surg.* 2015;28(4):247-255. doi:10.1055/s-0035-1564433
2) Mulita F, Oikonomou N, Provatidis A, Alexopoulos A, Maroulis I. *Roseomonas gilardii* in patient with leukemia and acute appendicitis: case report and review. *Pan Afr Med J.* 2020 Aug 14;36:283. doi: 10.11604/pamj.2020.36.283.24834. PMID: 33117477; PMCID: PMC7572676.

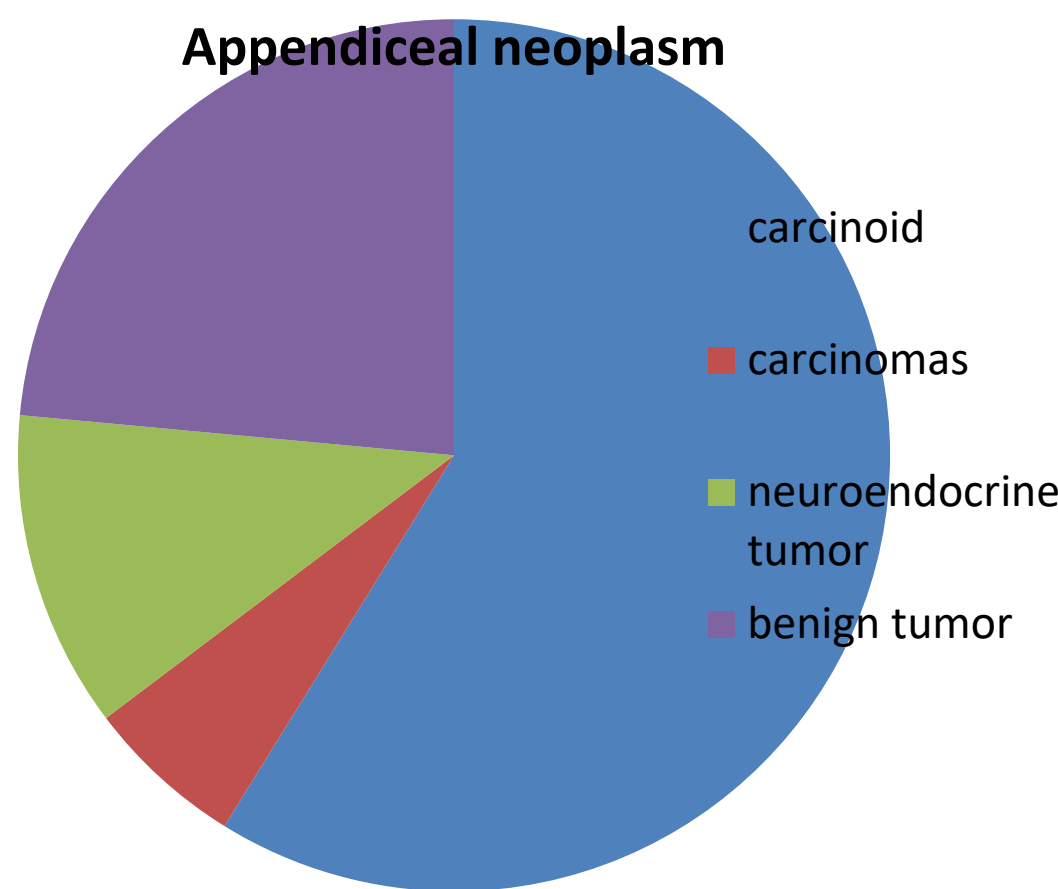


Chart 2. Histopathology of 17 appendiceal neoplasms

Discussion

There are several kinds of appendix tumors, some of which are cancerous and some of which are not. The two main types of appendix cancer are called carcinoid tumors and carcinomas. Out of 1809 patients who were operated for appendicitis, 13 (0.72%) had a malignancy.

Conclusion

Tumors of the appendix are very rare and the majority of them are malignancies. Early recognition is very important. There is no standard of care due to rare frequency of these tumors.

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LYNCH SYNDROME IN THE UK: THE CLINICAL PROBLEM

- Estimated 175,000 people with LS BUT only 5% of cases identified
- If we can identify those with LS, and families at risk, then surveillance can be undertaken
- Surveillance with colonoscopy -> reduced risk of dying from colorectal cancer (CRC)
- CRC with microsatellite instability (seen in LS) less responsive to fluorouracil
- Therefore identifying LS has important implications in patient treatment
- Testing for LS at time of bowel cancer diagnosis in the UK is poor
- In Wales NONE of the seven health boards were routinely testing for LS

- 2014: ROYAL COLLEGE OF PATHOLOGISTS (RCPATH)**
- Recommend mismatch repair (MMR) IHC in all CRC aged <50y or by request
 - *"There is a strong case for testing all CRC, but resource implications mean it cannot be considered at this time"*

2016:
All Wales Medical Genetics Service (AWGMS) and Wales Cancer Network (WCN) made initial representations to the Welsh Health Specialised Services Committee (WHSSC)

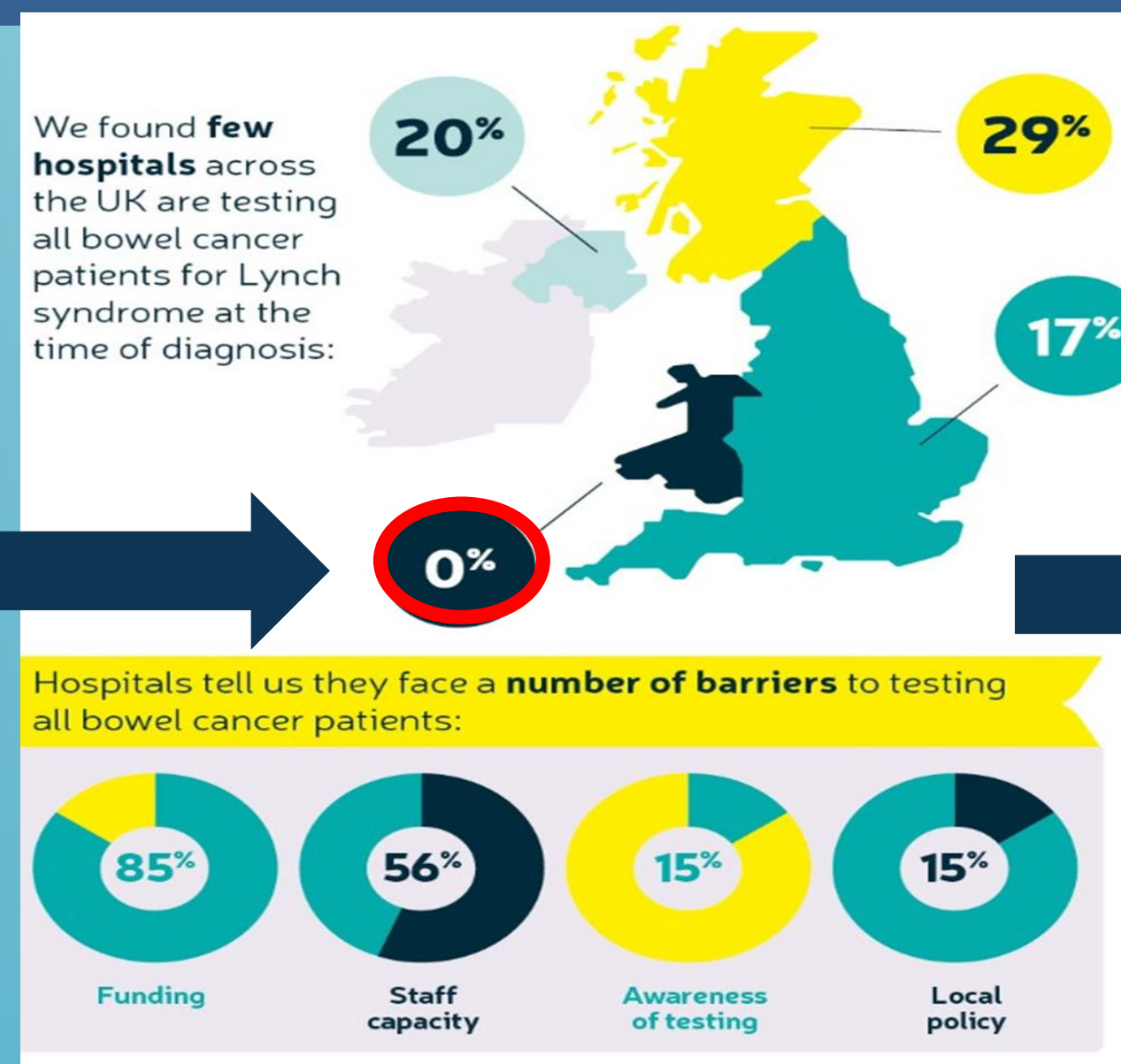
2016: Welsh Government
disengagement from process

2017-2018:
Lynch Syndrome Testing Working Group set up:
Expert clinicians and scientists, MDT representation in a working group to develop the testing pathway and work around barriers in the context of health economics and logistics of the All Wales service

2017 NICE GUIDANCE (DG27) RECOMMENDATION
"Offer testing to all people with colorectal cancer, when first diagnosed, using immunohistochemistry for mismatch repair proteins or microsatellite instability testing to identify tumours with deficient DNA mismatch repair, and to guide further sequential testing for Lynch syndrome"

2018:
Agreement of all Health Boards in Wales on working group proposals! **BUT** Government declines commissioning service

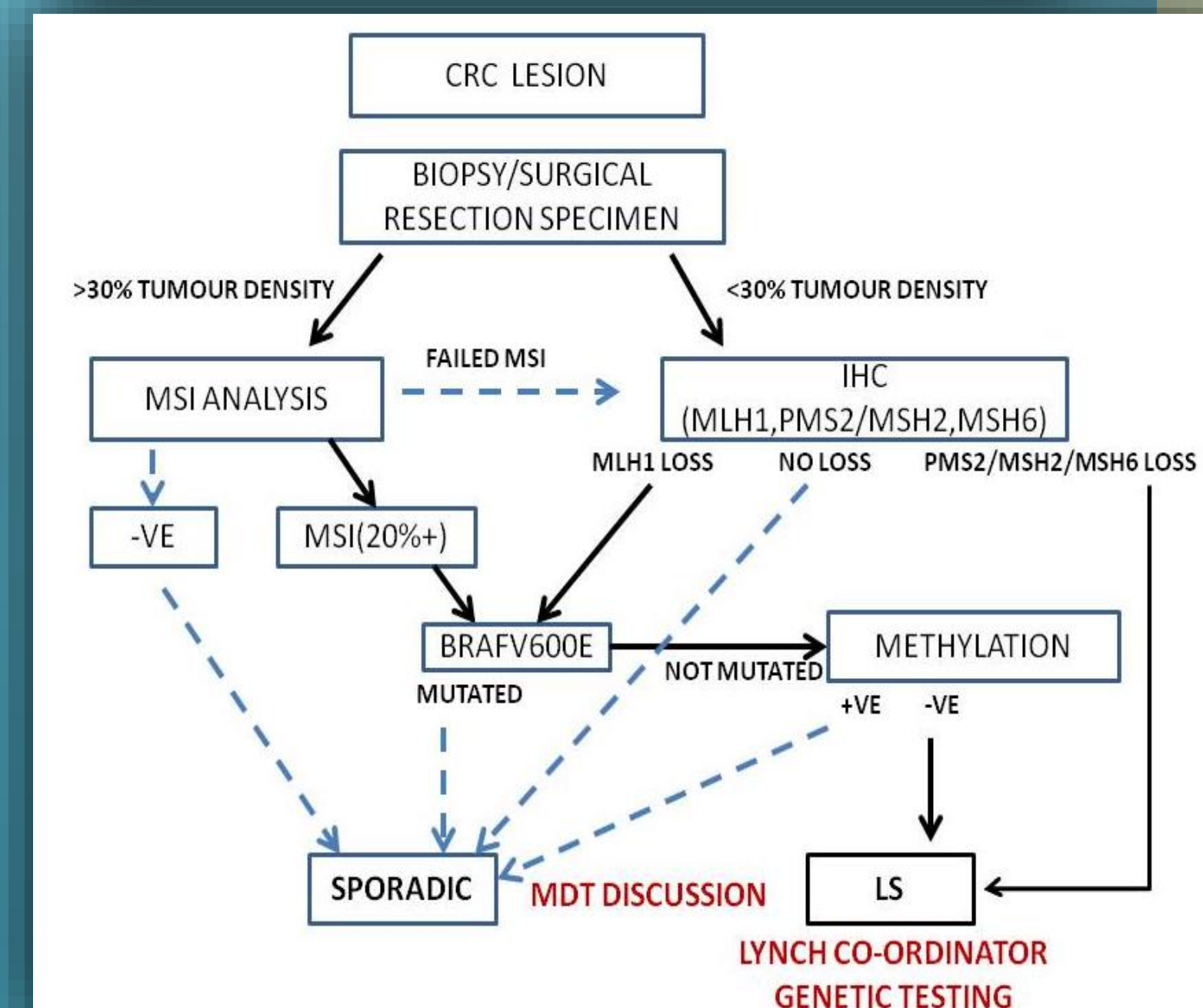
2018- 2019:
Welsh Assembly returns to engage with Working Group and agree on LS testing for all CRC in Wales as per NICE Guidance



WHAT WERE THE BARRIERS IN WALES?

- 7 different health boards with different populations and funding streams – territorial constraints
- Wales does not have CCGs - commissioning of services is via devolved Welsh Government (WG)
- Ensuring regional equity across the country
- Limited expertise and resources (i.e. few laboratories and personnel able to undertake testing processes)
- Quality assurance - how to ensure nationwide standards

Lynch Syndrome Testing Pathway
Either a biopsy, or a resected tumour can be tested. If there is a greater tumour density then MSI analysis using polymerase chain reaction is performed, followed by methylation analysis using next generation sequencing. Alternatively immunohistochemistry (IHC) for certain genes is undertaken.



- PATIENT POWER!**
- Bowel Cancer UK/Charity Lobbying
 - Freedom of Information Requests
 - UK "Time to Test" campaign
 - Engagement with local / national media
- RESULT:**
- May 2018 – Bowel Cancer Debate at Welsh Assembly Government

HOW ARE WE DOING?
In the first 8 weeks of service.....

- 326 referrals
- 90% of MSI reports delivered in 10 day target
- 85% of BRAF/MLH1 methylation reports in 10 day target
- 49 patients with MSI identified
- 9 patients with Lynch Syndrome identified
- ALL health boards in Wales have utilised this service

CONCLUSION
Wales has a devolved health service, with difficult structural/funding challenges, particularly when encountering government level resistance. This is a remarkable achievement and an excellent example of how multidisciplinary collaboration and patient group engagement can produce change in national strategy that has already improved the care of many patients.

12th JULY 2019 :
Launch of LS Testing Pathway in Wales – the first UK nation to do so

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Cardiff and Vale Health Board

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Deborah Alsina MBE – CEO Bowel Cancer UK, all patients and members of public who lobbied for this testing
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All Wales Genetics Laboratory
All Wales Medical Genetics Service
Wales Cancer Network

Poster 48: Value of butyrylcholinesterase as a marker of a surgical site infection following surgery for colorectal cancer

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Introduction

Butyrylcholinesterase (BChE) is an α -glycoprotein synthesized in the liver. BchE’s serum level decreases in many clinical conditions such as acute and chronic liver damage, inflammation, injury and infections, and malnutrition.

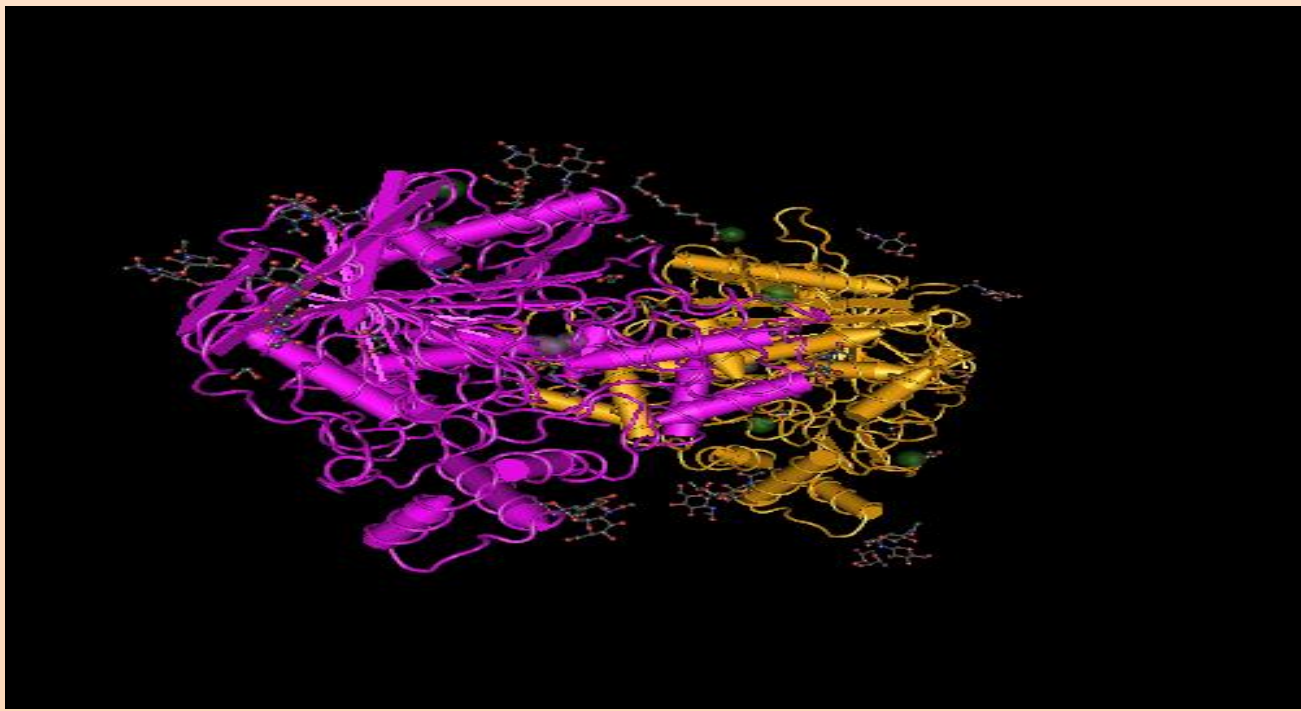


Figure 1. Crystal structure of fully glycosylated human butyrylcholinesterase



Figure 2. Wound dehiscence after severe surgical site infection

Methods and Materials

Over a 15 months period, between June 2019 and August 2020, we prospectively evaluated 141 patients undergoing five elective procedures for colorectal cancer. Blood samples were collected preoperatively (at day 0), post-operatively in the recovery room (day 1), and on the subsequent four days (day 2, 3, 4 and 5) for assessment of BChE, C-reactive protein and white blood cell concentrations. The same surgical team operated all patients and was blinded to the study. Patients were monitored for post-operative infection by using standard laboratory and clinical methods. If surgical site infection (SSI) was suspected the wound was swabbed and empirical antibiotics were started.

Results

The mean age of patients was 72 years (range, 42 to 85). Of these patients 65 (46.1%) were female, and 76 (53.9%) were male. SSI was occurred in 27 (19.15%) patients. A decreased BChE activity in patients with SSI was observed, as compared to patients with healthy trauma.

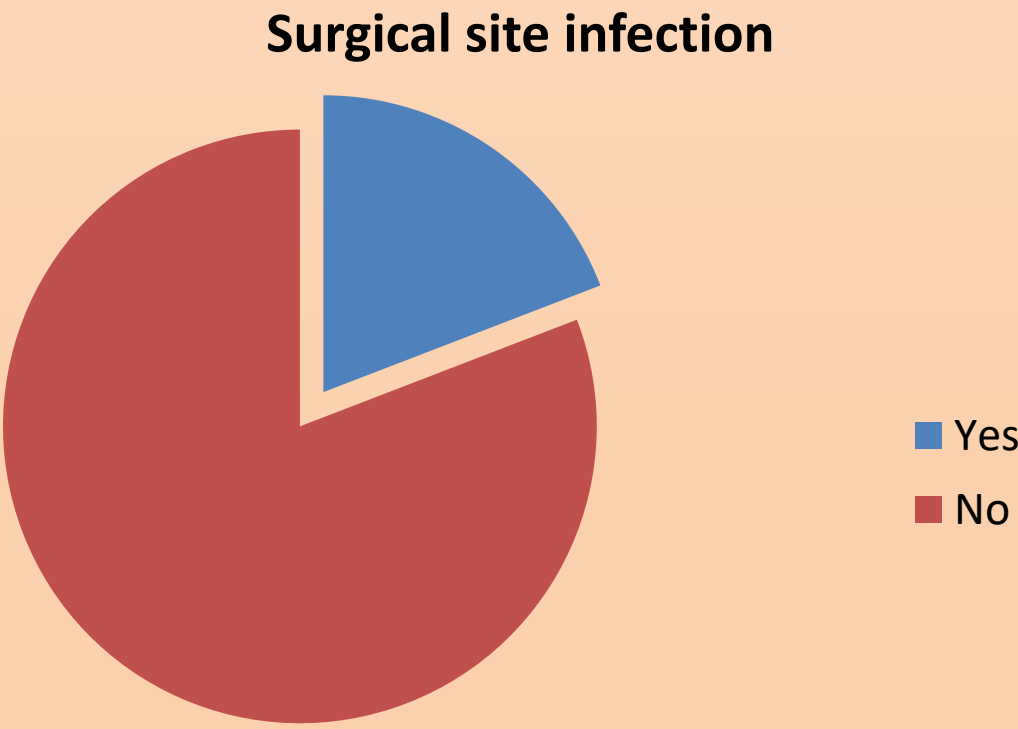


Chart 1. Surgical site infection out of 141 patients who underwent colorectal surgery

References

- 1) Santarpia L, Grandone I, Contaldo F, Pasanisi F. Butyrylcholinesterase as a prognostic marker: a review of the literature. *J Cachexia Sarcopenia Muscle*. 2013;4(1):31-39. doi:10.1007/s13539-012-0083-5
2) Xu L, Zhu B, Huang Y, et al. Butyrylcholinesterase Levels on Admission Predict Severity and 12-Month Mortality in Hospitalized AIDS Patients. *Mediators Inflamm*. 2018;2018:5201652. Published 2018 Mar 15. doi:10.1155/2018/5201652

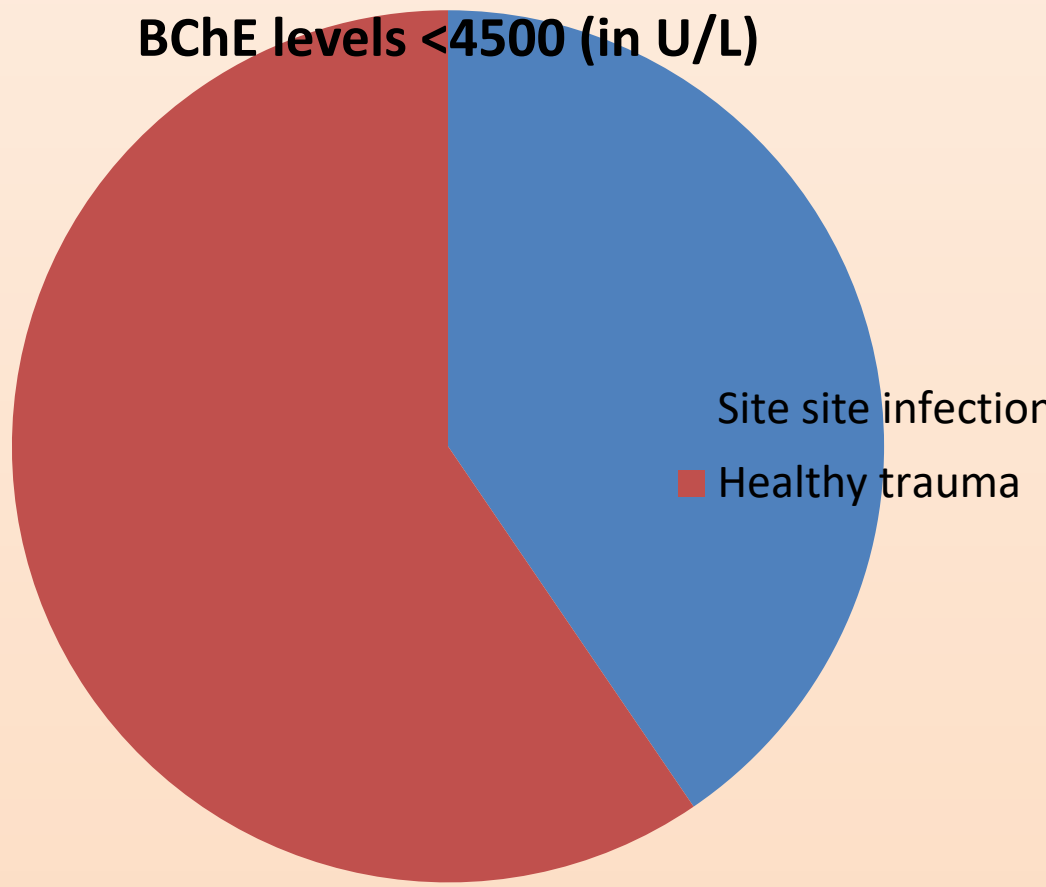


Chart 2. BChE level <4500 on postoperative day 3 between patients with healthy trauma and patients with site site infection

Discussion

Butyrylcholinesterase (BChE) is an important enzyme synthesized in the liver. The normal range of BChE is roughly from 4500 U/L to 15,000 U/L in adult population. It is usually as a prognostic biomarker of liver diseases such as viral hepatitis, cirrhosis, hepatocellular carcinomas, and even liver failure as well as an important clinical marker in inflammation, severe bacterial infection, and fungal infection. Importantly, reduced BChE indicates severe systemic inflammation in critically ill patients. BChE levels (in U/L) were measured in 144 patients; <4500 was defined as “low” and \geq 4500 as “normal.” 17 out 27 patients with site site infection (63%) had BChE level < 4500, whereas only 22% (25/114) of patients with healthy trauma had low level of BChE.

Conclusion

The current study demonstrates that BChE is a reliable marker for the presence of SSI in patients undergoing colorectal surgery.

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Poster 57: Revision surgery after preventative breast surgery in gene carriers and high-risk women – Risk factors and how to reduce reoperation rates.

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The Breast Unit University Hospitals Leicester



Background

Preventative breast surgery reduces breast cancer incidence in gene carriers and high-risk individuals. Various techniques and prosthetic materials are currently used for immediate breast reconstruction. We describe the experience of a single surgeon in University Hospitals Leicester from 2003 to 2019.

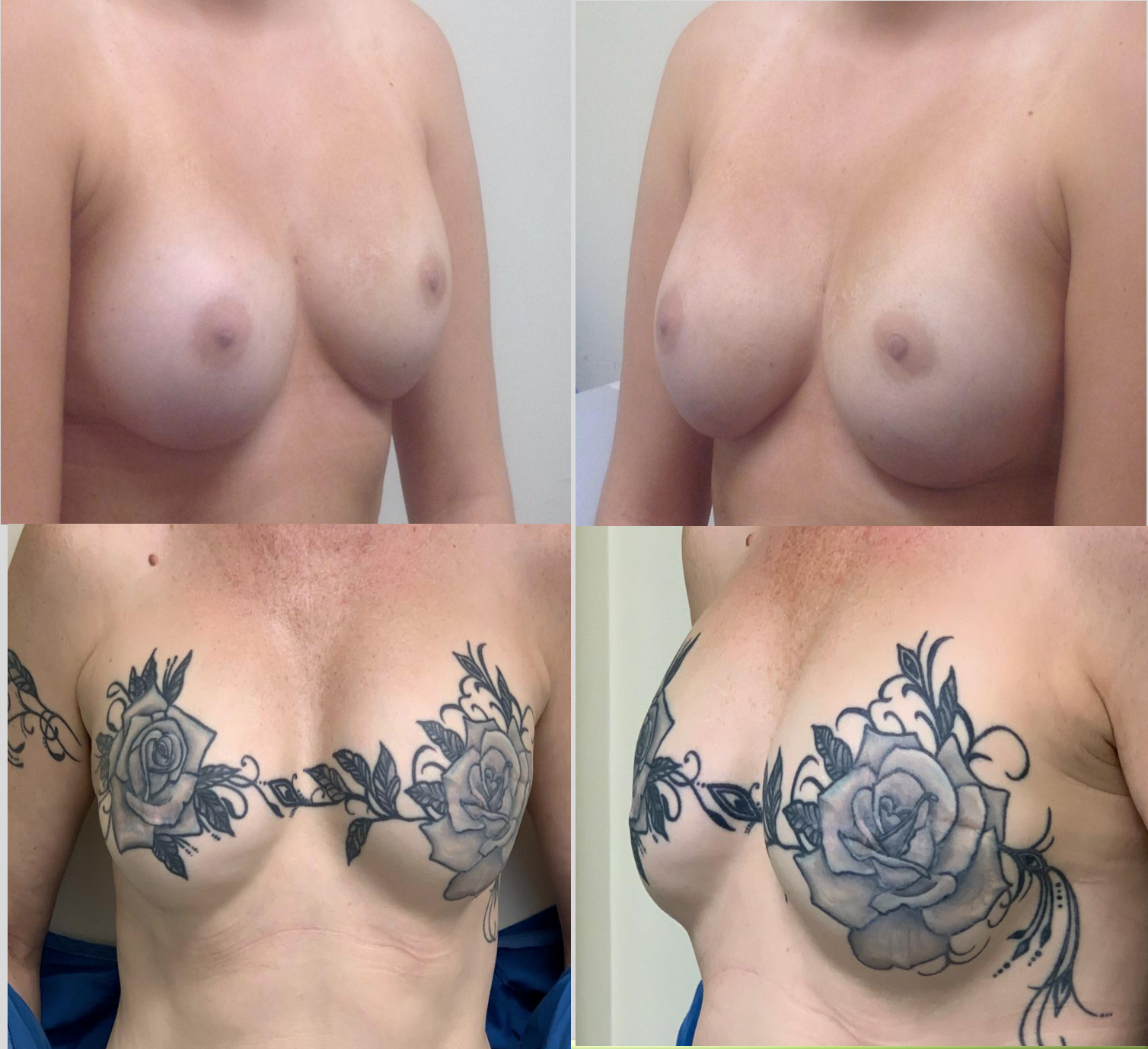
Methods

- This poster describes the outcomes of patients undergoing risk reducing mastectomy at University Hospitals Leicester under a single surgeon between 2003 and 2019.
- All patients underwent pre-operative evaluation – risk determination +/- gene testing, surgical discussion, psychological evaluation in selected cases.
- All 168 risk reducing mastectomies were reviewed to record method of reconstruction, lengths of follow-up, previous breast cancer, smoking history, BMI, radiotherapy, complication rates and revision surgery.

Results

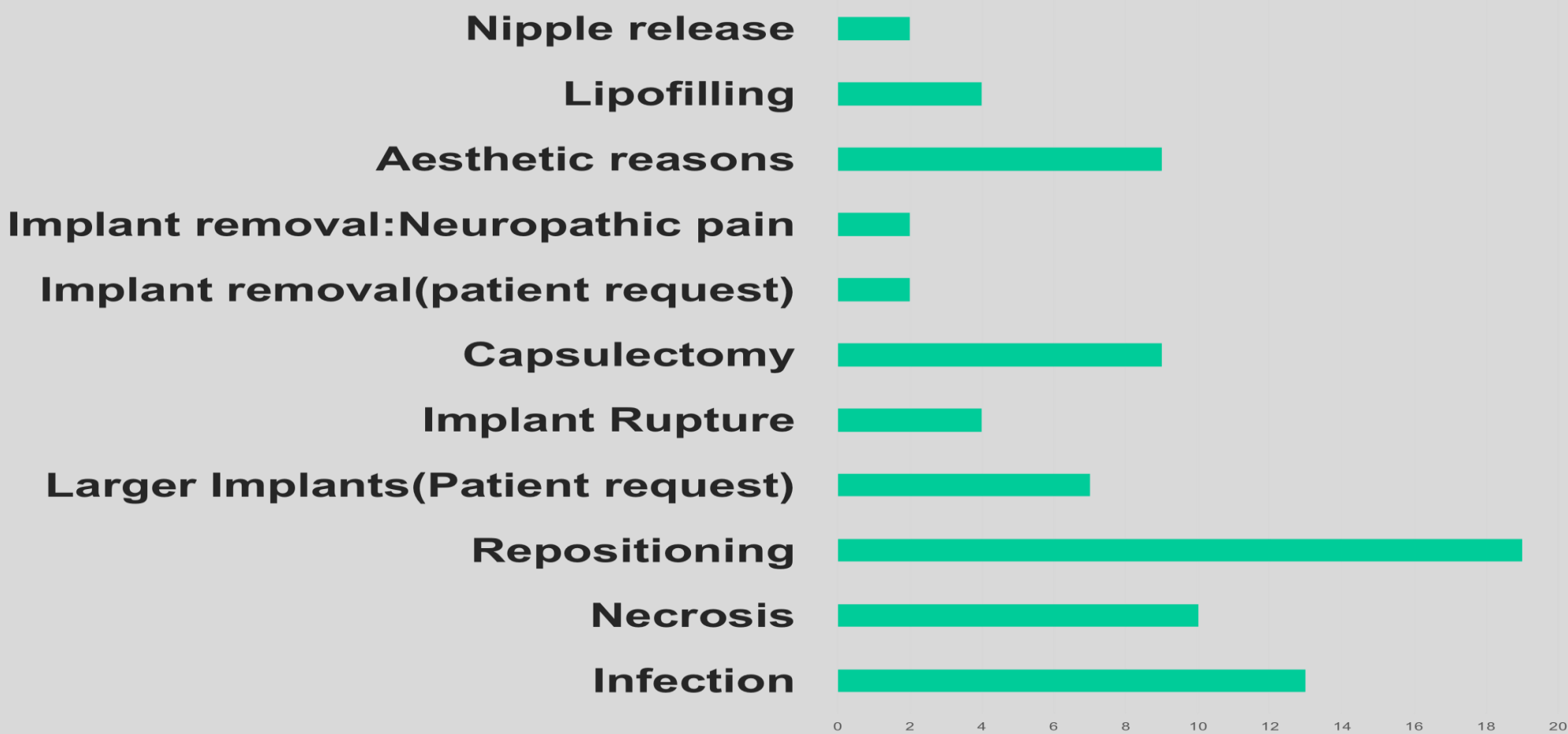
- 88 women underwent 163 risk reducing mastectomies
 - 133 BRCA gene carriers
 - 32 high risk families (no specific gene identified)
 - 3 previous mantle Irradiation.
 - 1 p53 Carrier.
- Median age 41 yrs. (range 27-72)
- Average BMI 24.7 (range 18-48)
- Smokers or ex-smokers 27/88
- Previous Radiotherapy 18/88

Patient Photographs



Pre and Post—operative appearance. Implant-based reconstruction following skin sparing mastectomy in a gene carrier.

- **Unplanned revisions** 81/163 (56 once, 15 twice, 7 three times, 3 four times)
- Reasons for Revisional surgery included wound breakdowns (infection/necrosis), implant repositioning, implant removal for pain, removal of redundant skin, and lipo-modelling.

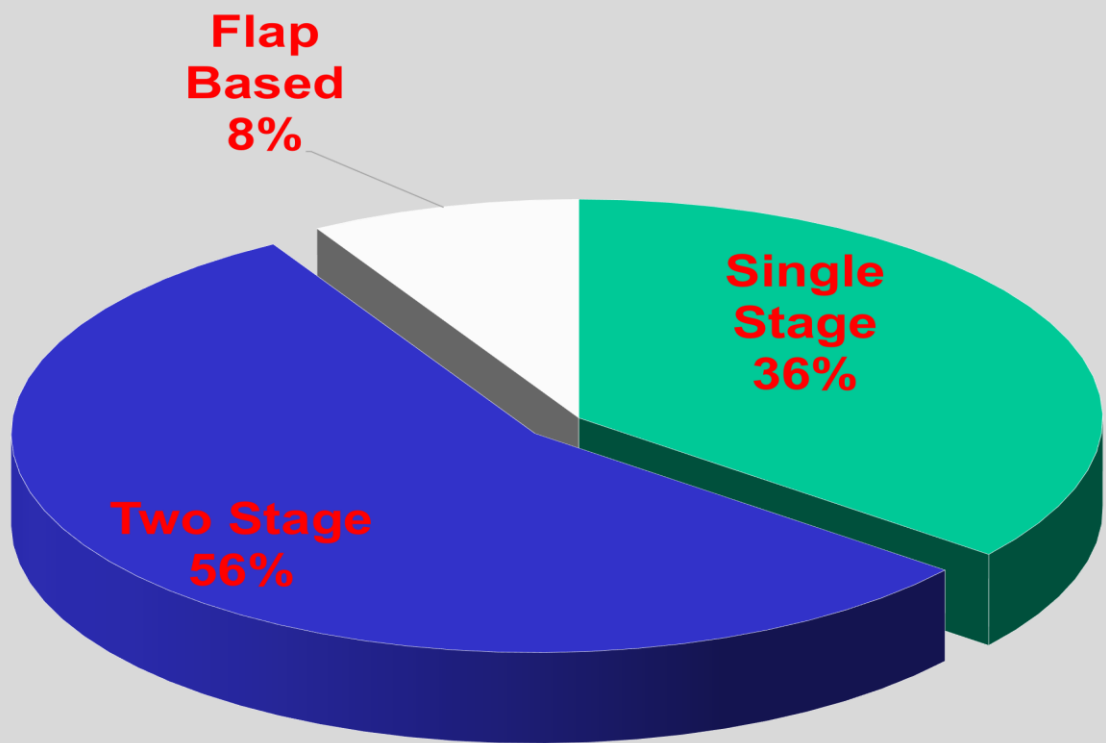


23/163 – infection/necrosis. (15 Implants were lost to infection)
Infection was more common in smokers (p<0.00001)

28 patients had BMI >25 and there was no increased risk of infection/necrosis or revisional surgery among this cohort. (p=0.6)
18 patients had previous radiotherapy and only 3 had infection.

Conclusion

Smoking is the most important risk factor that increases incidence of infection, necrosis and revisional surgery after preventative breast surgery.



Single stage reconstruction 60/163
Two stage reconstruction 94/163
Flap based reconstructions 14/163
Bio-mesh was used in 49/163.

Poster 75: Isolated Breast Pain in One Stop Breast Clinic

Dr Patricia Lolua Lali; Mr. Vishal Patel; Mr. Ekambaram Babu;
The Breast Unit, The Hillingdon Hospitals NHS Trust

Background

Isolated mastalgia is frequently seen under the 2WW criteria but has long has a controversial role in the identification of breast malignancy¹.

The waiting times target for patients referred with breast symptoms is 93% within two-weeks. Prior to the Covid-19 pandemic, the numbers being seen nationally within this timescale had already fallen to 83.6%². Given the current extension in waiting lists across the U.K., we have a responsibility to scrutinise our clinical priorities for referral. One-stop clinics provide comprehensive diagnostic testing in one outpatient appointment. Nevertheless, the referral is not universally appropriate and can be anxiety inducing for many given the invasive nature of the investigations. Furthermore, there are many ultrasound investigations requested by clinicians at additional economic cost with little diagnostic benefit.

Objectives

The aims of this study were as follows:

- To identify the proportion of patients aged 40 years or older presenting to One Stop Breast Clinic with breast pain as their only presenting symptom i.e. no discreet lump and/or nipple symptoms
- The rate of new malignancy diagnosed in this cohort.

Secondary Aim:

- The standard investigations ordered for these patients given the absence of any breast lump.

Methods and Materials

Inclusion Criteria:

The data from all patients aged 40 or older who attended Hillingdon Hospital One Stop Breast Clinic between September and December 2019 was included in this study. Both male and female patients were included. In total, 623 patients met this criteria.

Patients were classed as presenting with "single symptom" were those with:

- Unilateral or bilateral breast pain;
- Nipple pain (without skin changes or discharge);
- No discreet lump or nodularity on clinical examination

Method:

Retrospective data was obtained from Breast Outpatient Clinic lists/letters and cross referenced with information provided on imaging request forms. Data from subsequent imaging, if performed, was also reviewed.

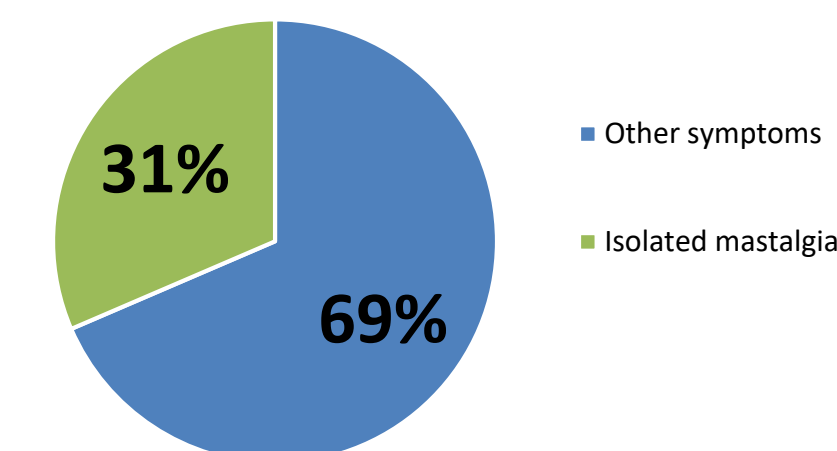
Presentations to One Stop Breast Clinic

Symptom	Patient Numbers
Lump	238 (38%)
Pain	196 (31%)
Lump + Pain	72 (12%)
Nipple symptoms (discharge, bleeding, skin changes)	31 (5%)
Other (Implant complications, Abscess, Asymmetry, Asymptomatic)	31 (5%)
Screening detected changes	20 (3%)
Incidental finding	18 (3%)
Skin changes	12 (2%)
Gynaecomastia	4 (<1%)
Lump + Skin changes	1 (<1%)

Results

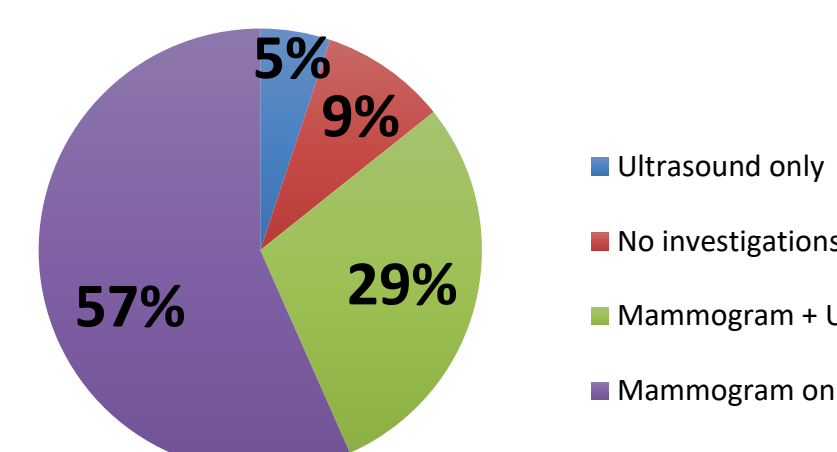
Of the 623 patients aged 40 and over who attended One Stop Breast Clinic at Hillingdon between September and December 2019, 196 patients sole presenting symptom was mastalgia. As demonstrated in Figure 1, this is almost a third of the patients.

Figure 1: Clinical symptoms on presentation



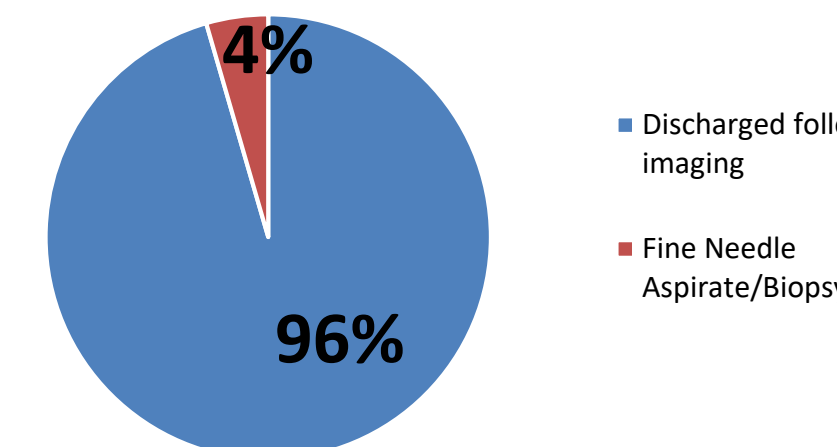
A small proportion of these patients were reassured based on clinical history and examination findings alone, however the majority went on to receive further imaging. This was either a mammogram, an ultrasound or both.

Figure 2: Imaging modalities of breast pain



Most notably, only 8 patients who presented with breast pain alone went on to have either a FNA or biopsy performed. No patients had concerning biopsy findings.

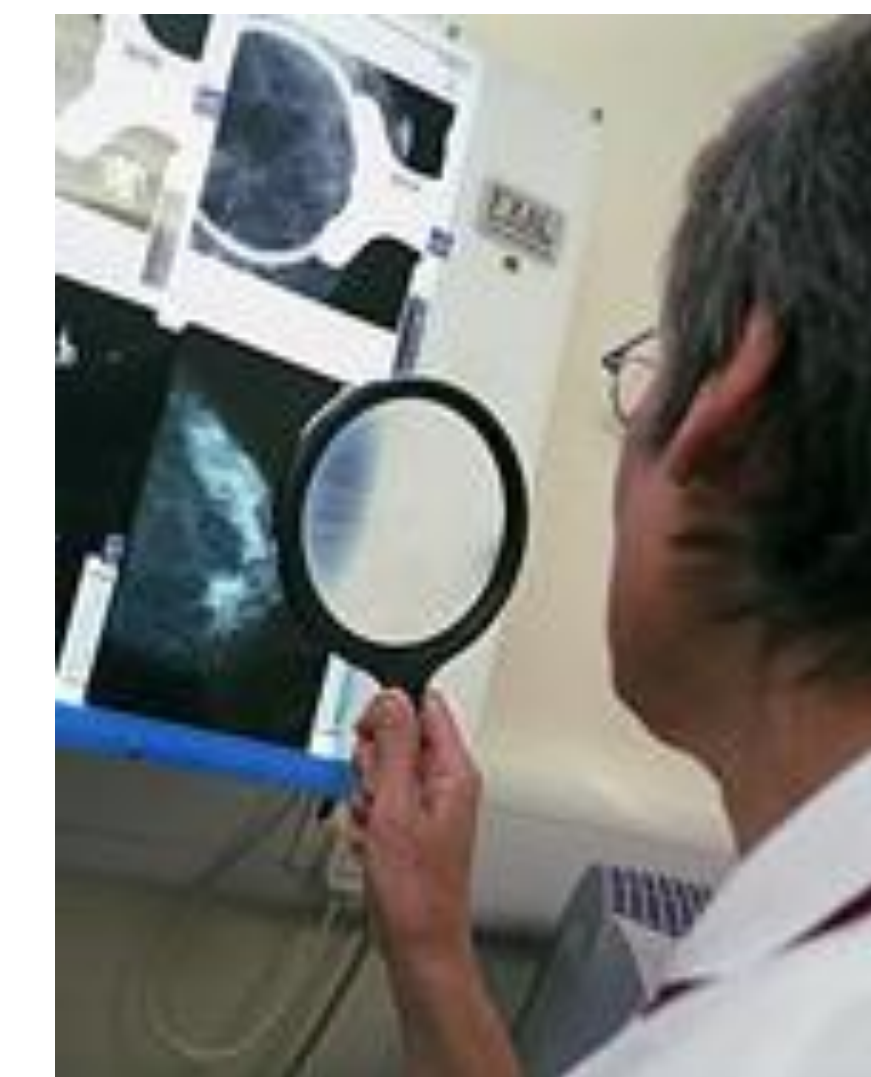
Figure 3: Further investigations of breast pain



Zero patients were diagnosed with malignancy as a result of attendance at One Stop Breast clinic.

Discussion

This study has demonstrated that although isolated mastalgia represented >30% of clinical time, there was no relationship between this symptom and malignancy in this cohort. These patients are frequently subjected to USS and mammograms, as well as experiencing significant anxiety associated with referral under the 2WW pathway. In addition, there is an increase to clinician workload: be that the GP who refers these patients or the multiple specialists they see in clinic, including the sonographers. The combined clinical time correlates with a low yield of identifying a breast malignancy – which is the very purpose of a 2WW clinic.



Furthermore, as mentioned previously, Breast units across the country are struggling to meet UK government targets within 2 weeks. This was prior to the challenges imposed on the NHS by the Covid-19 pandemic.

If it was safe to do so, by downgrading isolated breast pain as a symptom warranting a priority referral, it may be possible to see a higher percentage of those presenting to their GPs with more worrying clinical signs or symptoms. This may increase the yield of patients being diagnosed with a primary breast malignancy through this clinic.

Finally, the cost of one patient to attend a One Stop Breast Clinic is estimated at £151.90³. In this 3 month period alone, this equates to a saving of £29,772.40 if patients with breast pain were not seen.

Conclusions

The evidence demonstrated by this audit suggests that, despite representing almost a third of Hillingdon's one stop clinic appointments in the >40 age group, isolated mastalgia has a low or indeed absent association with underlying breast malignancy. Especially in the current NHS climate, which is minimising face to face patient contact due to Covid-19, the findings of this audit suggests that national guidance about the criteria for these appointments should be regularly reviewed. More evidence would be required to support a change in policy, including obtaining data on the <40s age group. This change in policy could mean patients presenting with isolated mastalgia to their GP would not qualify for a 2WW cancer referral. There may also be an argument to support GPs having direct access to mammograms in this patient group.

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References:

1. Robin L. Smith, S. P. (2004, March). Evaluation and Management of Breast Pain. Mayo Clinic Proceedings.
2. Breast Cancer Now [Online] // Breast Cancer Now. The Research & Care charity . - April 2020. - <https://breastcancernow.org/about-us/media/press-releases/we-respond-nhs-england-breast-cancer-waiting-times>
3. Dey, Paola et al. "Costs and benefits of a one stop clinic compared with a dedicated breast clinic: randomised controlled trial." BMJ (Clinical research ed.) vol. 324,7336 (2002): 507.



Poster 76: Recurrence of Breast Cancer following Breast Conserving Surgery

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Introduction / Background

The two major surgical approaches for managing breast cancer are mastectomy and breast conserving surgery. The long term survival and local recurrences of breast cancer following the two approaches have proven to be similar. Due to the similarities in prognosis, cosmetic benefits and reduced morbidities the conservative approach is a popular option for both surgeon and patient(1,2).

Recommendations have been set to aid the decision of whether breast conserving surgery is a suitable option. These include:

- Tumour size up to 4 cm in diameter
- Candidate for radiotherapy
- Margin clearance of at least 1 mm(3)

A local recurrence is one which occurs on the same breast as the original tumour. BASO has set a maximum local recurrence rate of 5% after 5 years with a target of less than 3%(4). I conducted an audit at Ealing Hospital to assess our compliance towards the above recommendations, to determine the local recurrence rate and the impact of certain risk factors on recurrence.

Objectives

- The objectives of this audit include the following:
1. To establish the 5 year local recurrence rate at Ealing Hospital
 2. To determine compliance towards the recommendations listed above.
 3. To determine the impact of the following risk factors on recurrence:
 - Tumour size
 - Margin clearance
 - Triple negative status
 - Nodal Involvement
 - Grade of cancer
 - Age

Methodology

This was a retrospective audit on breast cancer patients at Ealing Hospital in West London. Using a case-control approach I reviewed two groups of patients from Ealing Hospital. One group consisting of all the patients who received breast conserving surgery and radiotherapy between 1st April 2014 to 31st December 2014. I reviewed these patients to determine our 5 year recurrence rate. In total this group was made up of 31 patients. I then removed the patients who had a relapse to make this group the control group.

The second group of patients were provided by a Consultant Histopathologist. This group consisted of 13 patients identified by the Histopathologist to have had a local recurrence within 5 years between 2011 to 2019. This group will be the case group and includes patients who had a relapse between April to December 2014.

By comparing the case group against the control group, we can determine the impact of the aforementioned risk factors on recurrence.

I conducted a retrospective review of information from patient notes, histopathology reports and radiology reports. For both groups I collected data on margin clearance, number of margins involved, size of tumour, triple negative status, nodal involvement, number receiving radiotherapy and location of tumour.

This audit will form part of a larger audit based at other hospital sites that will result in an increased sample size and therefore provide more statistically significant data.

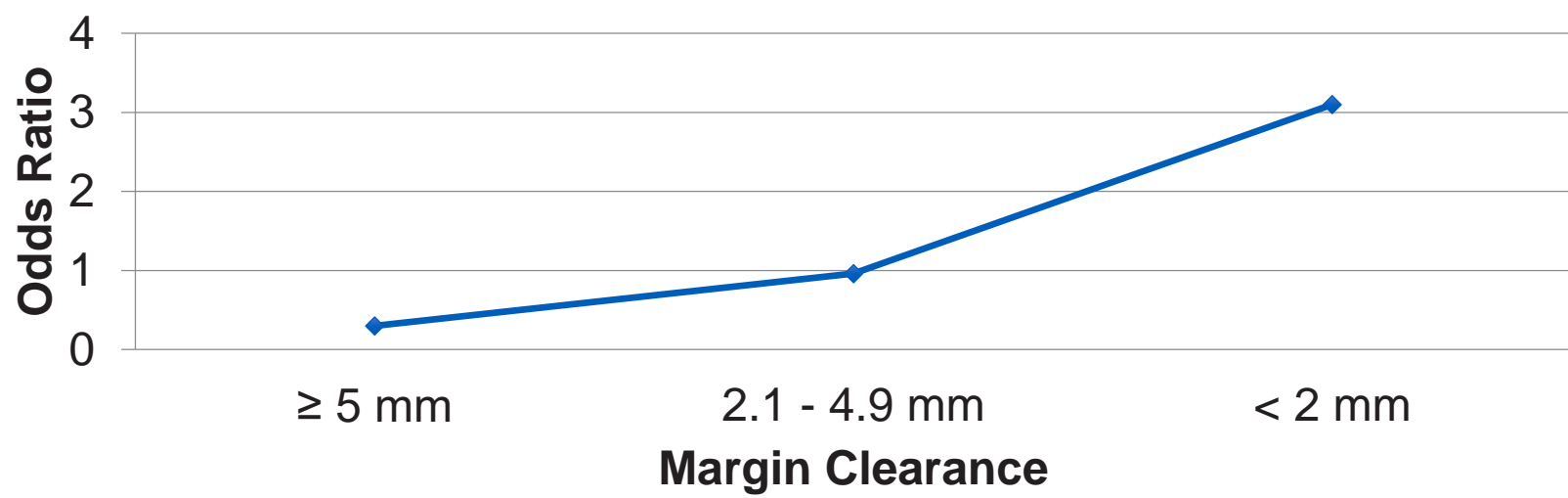
Results

Ealing Hospital 5 Year Local Recurrence Rate: 6.45% (2/31 patients had a recurrence)

Lowest Margin Clearance: The table below shows the percentage of patients in both the recurrence and no recurrence group whose lowest margin clearance was either less than 2 mm, 2.1 to 4.9 mm or ≥5mm. An odds ratio has also been calculated for each range. An Odds ratio (OR) greater than 1 indicates increased risk of recurrence, less than 1 protective and an OR of 1 indicates no association.

Margin clearance range	No recurrence (%)	Recurrence (%)	Percentage ratio	Odds ratio
≤ 2mm	34.5	61.5	1.78	3.1 (p=>0.05)
2.1 – 4.9 mm	24.1	23.1	0.96	0.96 (p=>0.05)
≥ 5 mm	37.9	15.4	0.41	0.3 (p=>0.05)

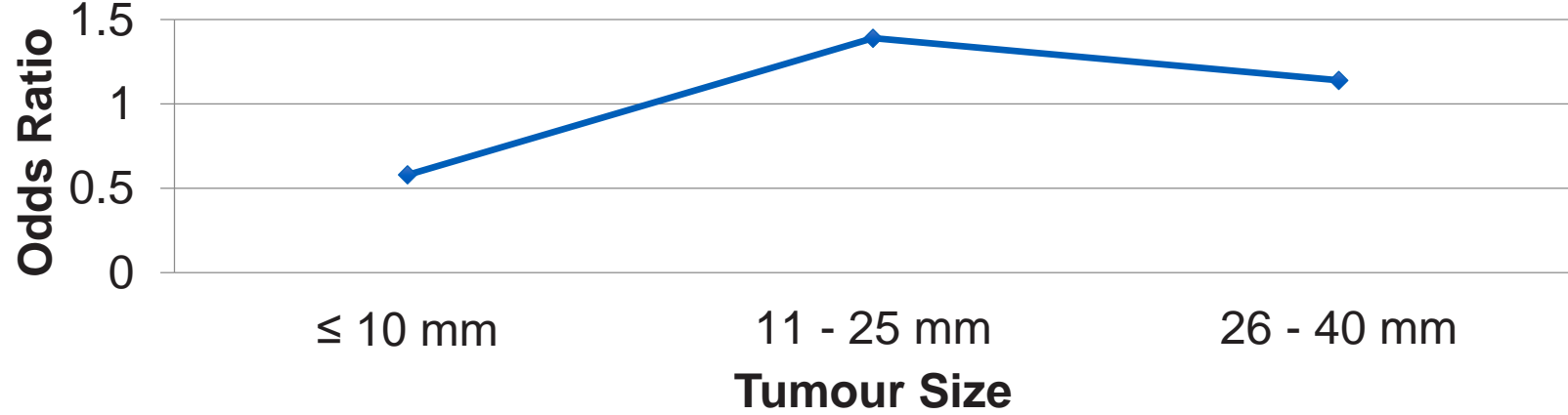
Lowest margin clearance v Odds Ratio



Size of tumour: The recommendation is up to 4 cm in diameter. Only the invasive tumour size is considered.

Size of tumour	No recurrence (%)	Recurrence (%)	Percentage ratio	Odds ratio
≤ 10 mm	24.1	15.4	0.64	0.58 (p=>0.05)
11 - 25 mm	62.1	69.2	1.11	1.39 (p=>0.05)
26 – 40 mm	13.8	15.4	1.12	1.14 (p=>0.05)
> 40 mm	0	0	0	0

Tumour Size v Odds Ratio



Triple negative disease: Odds ratio associated with triple negative disease. Note 86% of the recurrences occurred within 2 years of the surgery.

	No recurrence (%)	Recurrence (%)	Percentage ratio	Odds ratio
triple negative disease	6.9	54	7.82	15.9 (p=<0.05)

Nodal involvement: The percentage of patients in both groups who had at least one node involved.

	No recurrence (%)	Recurrence (%)	Percentage ratio	Odds ratio
Nodal involvement	21	31	1.48	1.72 (p=>0.05)



Results

Grade 3 Cancer: OR = 3 (p=>0.05)

Median age of recurrence group = 53 years (46% of the group was 50 years of age or less)
Median age of non-recurrence group = 61 years (31% of the group was 50 years of age or less)
Median length of recurrence: 1 year and 11 months
92% of recurrences occurred within 3 years.

All patients in this audit received radiotherapy in accordance with recommendations

Discussion

The 5 year local recurrence rate at Ealing Hospital is 6.45%. Due to the small sample size of 31 patients a deviation of 1 would cause a 3.2% change in the recurrence rate. Therefore being only 1.45% above the local recurrence rate set by BASO would imply that Ealing Hospital is meeting the BASO set standards for recurrence.

Data for the lowest margin clearance suggests a clear correlation between increasingly narrow margins and a risk of recurrence. A margin clearance of less than or equal to 2 mm had an OR of 3. A margin of greater than 2 mm had an OR of less than 1 implying protection against recurrence. Note a high OR is required to provide a p value less than 0.05 therefore the correlation of the falling OR with increasing margins shows an association rather than the OR itself.

No patient between April to December 2014 had a tumour greater than 4 cm in size, this is in keeping with current recommendations. There is no strong association between tumour size and recurrence as can be seen from the graph. A tumour between 11 to 25 mm had an Odds Ratio greater than a larger tumour between 26 to 40 mm. Therefore data shows no association between increasing tumour size and risk for relapse.

The strongest risk factor for recurrence is triple negative disease with an Odds Ratio of 15.9 and a p value less than 0.05. Over 4 out of 5 triple negative cancers (86%) recurred within 2 years of surgery. Overall 92% of all recurrences occurred within 3 years with a median length of recurrence of 1 year and 11 months. This would suggest that close surveillance over the first 2 to 3 years following surgery is highly important to detect a relapse of cancer.

According to the OR, Grade 3 cancer and a margin clearance of 2 mm or less both possess the same level of risk, as they both have an OR of 3.

Nodal involvement held an OR of 1.72 however the audit has not considered the impact an increasing number of nodes would have on the probability of cancer relapsing. The OR applies to tumours with 1 or more nodes involved.

There is an 8 year difference between the median age of the recurrence group versus the non-recurrence group. Almost a half of patients belonging to the recurrence group were 50 years of age or less compared to almost a third in the non-recurrence group. That is a 1.5 times difference between the two groups.

Conclusions

A margin clearance of 2mm or less is a risk factor of relapse however a clearance greater than 2 mm is a protective factor. Triple negative cancer is the strongest risk factor with an OR just over 5 times greater than margin clearance or grade 3 cancer. Over 9 out of 10 patients had a relapse within 3 years of surgery, and almost half of all patients with a relapse were 50 years old or less. No tumour size was greater than 4 cm and data did not suggest an increasing tumour size held a greater risk.

An audit with a larger sample size will be planned in order to test this data and provide more assertive conclusions.

Contact

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References

1. Veronesi U, Cascinelli N, Mariani L, Greco M, Saccozzi R, Luini A, Aguilar M, Marubini E. Twenty-year follow-up of a randomized study comparing breast-conserving surgery with radical mastectomy for early breast cancer. New England Journal of Medicine. 2002 Oct 17;347(16):1227-32.
2. Blichert-Toft M, Nielsen M, Düring M, Möller S, Rank F, Overgaard M, Mouridsen HT. Long-term results of breast conserving surgery vs. mastectomy for early stage invasive breast cancer: 20-year follow-up of the Danish randomized DBCG-82TM protocol. Acta oncologica. 2008 Jan 1;47(4):672-81.
3. Parker S, Tomlins A. Clinical Guidelines for the Management of Breast Cancer West Midlands Expert Advisory Group for Breast Cancer [Internet]. 7th ed. West Midlands: West Midlands Expert Advisory Group for Breast Cancer; 2016 [cited 15 November 2020]. Available from: <https://www.england.nhs.uk/mids-east/wp-content/uploads/sites/7/2018/07/guidelines-for-the-management-of-breast-cancer-1.pdf>
4. Association of Breast Surgery at Baso 2009. Surgical guidelines for the management of breast cancer. European journal of surgical oncology. 2009 Jan 1;35:51-22.



Poster 79: Cancer Rate in Thyroid Nodules Classified as Bethesda Category II

Francesk Mulita, MD, MSc, PhD¹; Kerasia – Maria Plachouri, MD, PhD¹ ; Konstantinos Panagopoulos, MD, PhD¹; Ioannis Maroulis, MD, PhD¹

¹General University Hospital of Patras



Introduction

Thyroid nodules are very common and may be found in more than 50% of the population. Fine-needle aspiration cytology (FNAC) of thyroid nodules is a very useful diagnostic tool with high sensitivity and predictive value for diagnosis. The Bethesda System for Reporting Thyroid Cytopathology (BSRTC) uses six categories for thyroid cytology reporting (I-non-diagnostic, II-benign, III-atypia of undetermined significance (AUS)/follicular lesion of undetermined significance (FLUS), IV-follicular neoplasm/suspicious for follicular neoplasm (SFN), V-suspicious for malignancy, and VI-malignant. Our objective was to determine the malignancy rate in Bethesda II nodules).

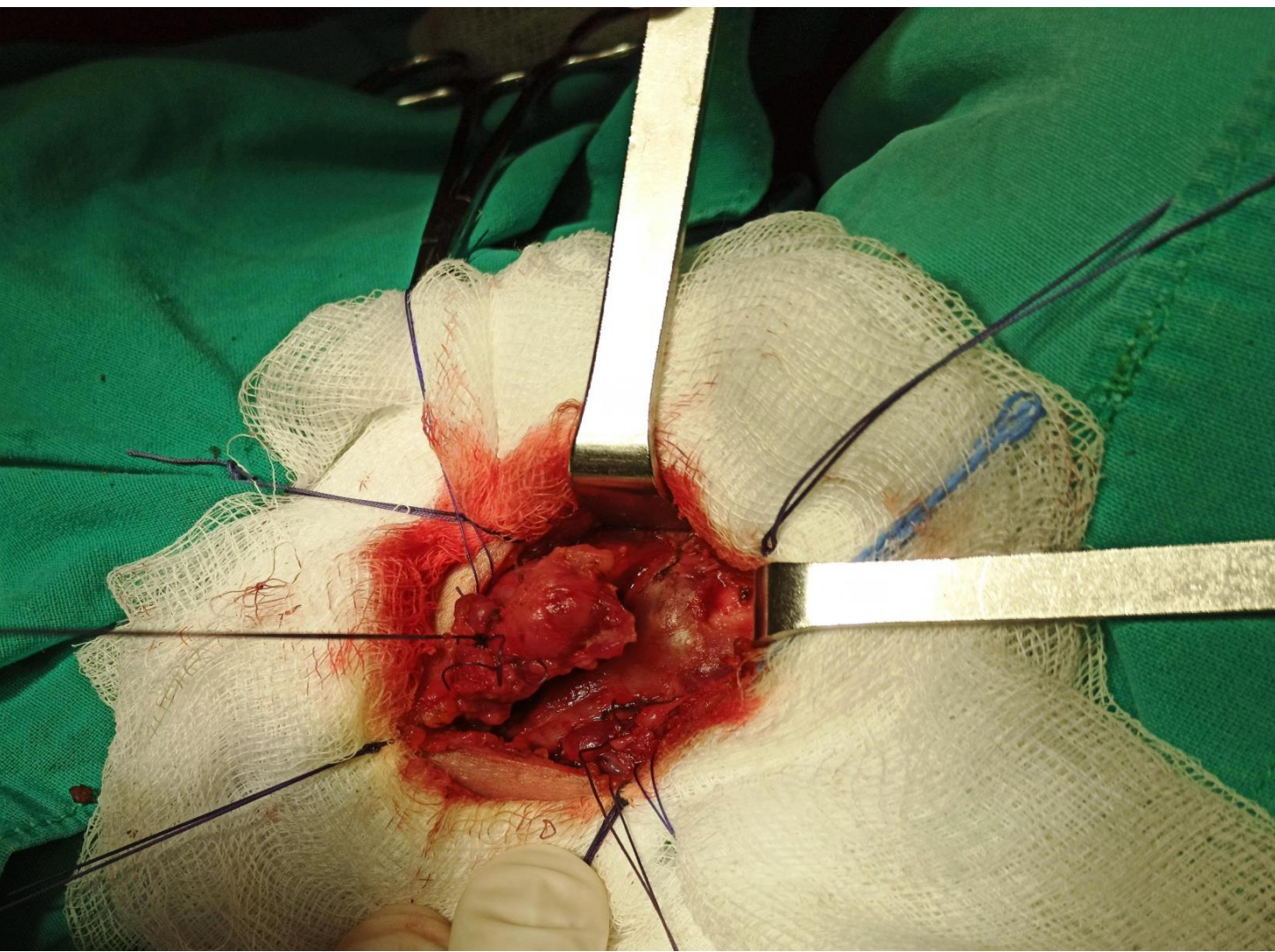


Figure 1. Thyroidectomy in a 20-year old patient for Bethesda II nodule

Methods and Materials

From June, 2010 to May, 2020 a retrospective analysis was performed among 1166 patients who underwent thyroid surgery for benign thyroid diseases in our institution. Thyroid cytopathological slides and Ultrasound (US) reports were reviewed and classified according to the BSRTC. Data collected included age, gender, cytological features and histological type of thyroid cancer.

Results

During the study period, 44.77% (522/1166) of patients with a FNA categorized as Bethesda II underwent thyroid surgery. Incidental malignancy was found in 1.53% (8/522) cases of Bethesda II .The most common malignant tumor type was the papillary thyroid carcinoma.

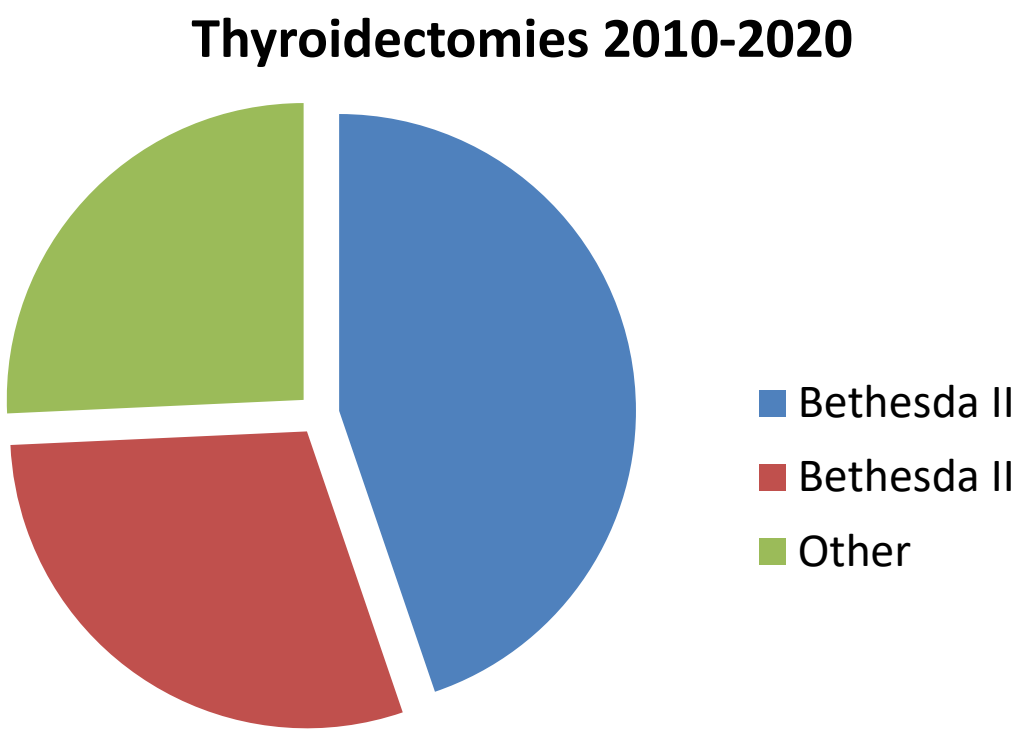


Chart 1. Histopathology of 1166 patients who underwent thyroidectomy from June, 2010 to May, 2020.

References

- 1) Mulita F, Anjum F. Thyroid Adenoma. 2020 Sep 15. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-- PMID: 32965923.
- 2) Alshaikh S, Harb Z, Aljufairi E, Almahari SA. Classification of thyroid fine-needle aspiration cytology into Bethesda categories: An institutional experience and review of the literature. *Cytojournal*. 2018;15:4. Published 2018 Feb 16. doi:10.4103/cytojournal.cytojournal_32_17

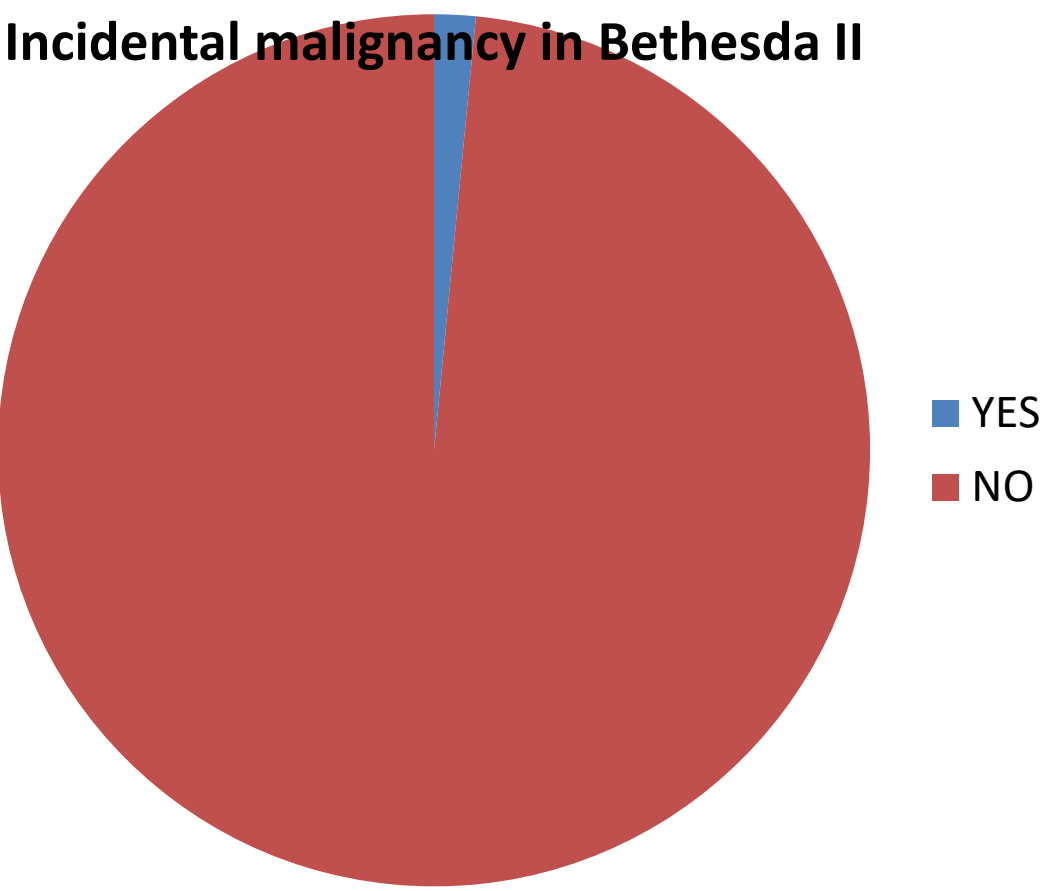


Chart 2. Malignancy found in 522 patients with FNA categorized as Bethesda II

Discussion

Out of 522 patients with FNA categorized as Bethesda II who underwent thyroidectomy, malignancy was found in only 8 cases (1.53%).

Conclusion

The current study demonstrates that incidental thyroid carcinoma can be diagnosed after thyroidectomy even in patients with an FNA categorized as Bethesda II.

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Introduction

‘Watch-and-Wait’ is an organ preserving method of treating rectal cancer non-operatively, first pioneered by Dr Angelita Habr-Gama in 2004(1). It is found that with neoadjuvant chemoradiotherapy for rectal cancers we can not only achieve improved local control but also a complete tumour response (2).

A complete pathological response (pCR) coded ypT0N0 is a more favourable prognosis in rectal cancer seen in 10-20% of patients (3) but due to uncertainty a surgical resection follows to confirm this finding. It has been reported that there has been no significant difference(4) between the demographics of either clinical or pathological complete responders and therefore ‘Wait and Watch’ after long-course chemoradiotherapy has been gaining interest worldwide as a more conservative method of treatment.

This study uses the largest dataset from a single centre in the UK to evaluate whether the ‘Watch and Wait’ approach is as safe and efficacious (5) as literature states in the real world.

Objectives: The aim of this study is to analyse the different outcomes of ‘Watch and Wait’ patients with rectal cancer who achieved a clinical complete response to neoadjuvant therapy over a 7 year period.

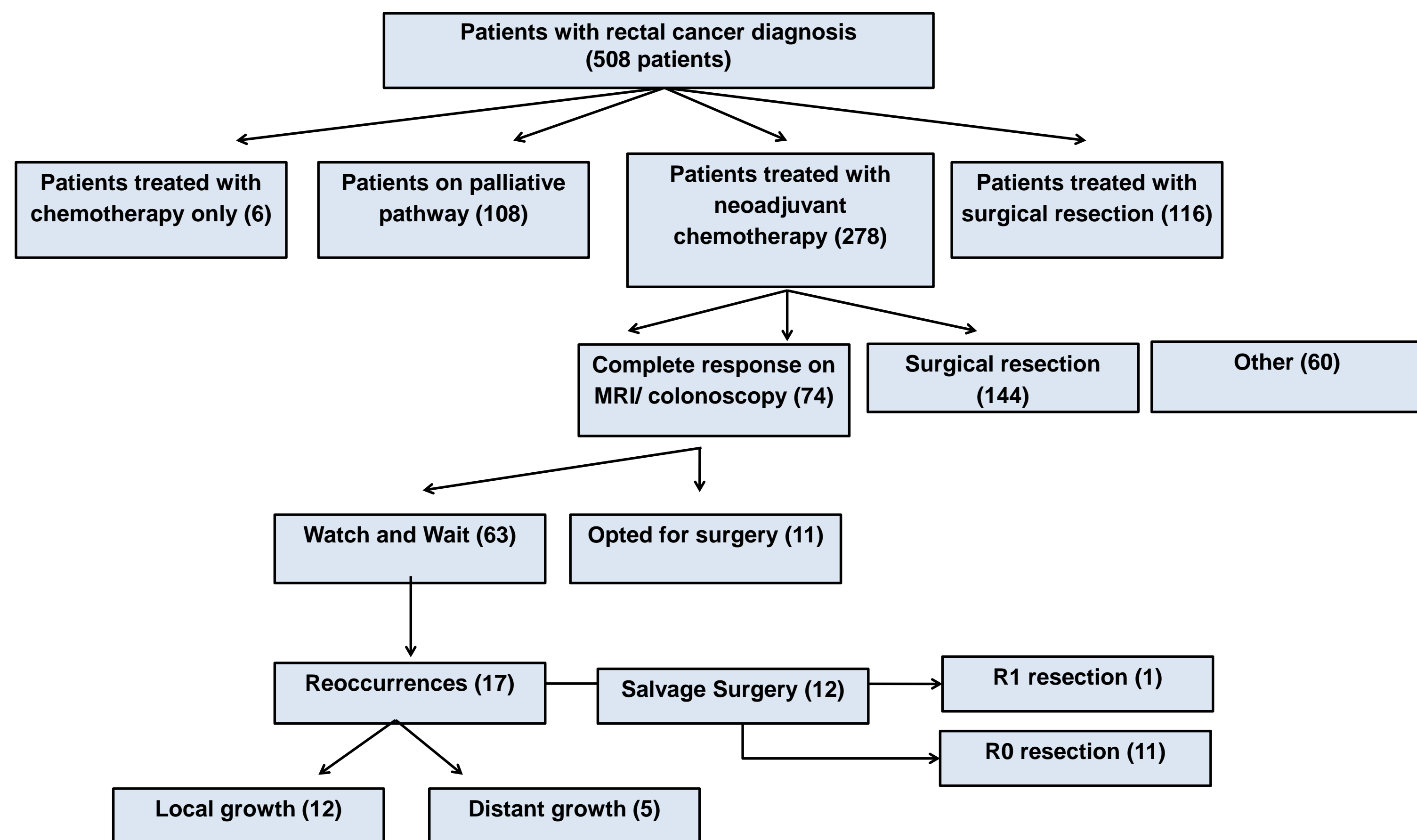


Fig 1. Flow diagram of patients diagnosed with rectal cancer.

Methods and Materials

A retrospective analysis was performed on rectal carcinoma patients diagnosed at BHRUT from **May 2013 to June 2020**. Electronic health records such Somerset Cancer register and Trust software –EPRO, Cyberlab were utilised. 508 rectal cancer patients were identified as having undergone treatment at our trust. **278 had neoadjuvant chemotherapy (NACRT) with curative intent**. 230 were excluded from the analysis as they had: surgery without NACRT, palliative treatment or treatment outside the ‘Watch and Wait’ protocol. (Refer to fig. 1). From the 74 patients that achieved complete clinical response identified using either MRI imaging or endoscopy techniques, **63 were selected for ‘Watch and Wait’**.

The ‘Primary outcomes’ used to analyse its safety and efficacy included: Median overall survival, Disease Free Survival, Recurrence Rate, R0 Salvage Surgery Rate and Distant failure.

Tumour Characteristics for ‘WW’ selection based on T & N stage

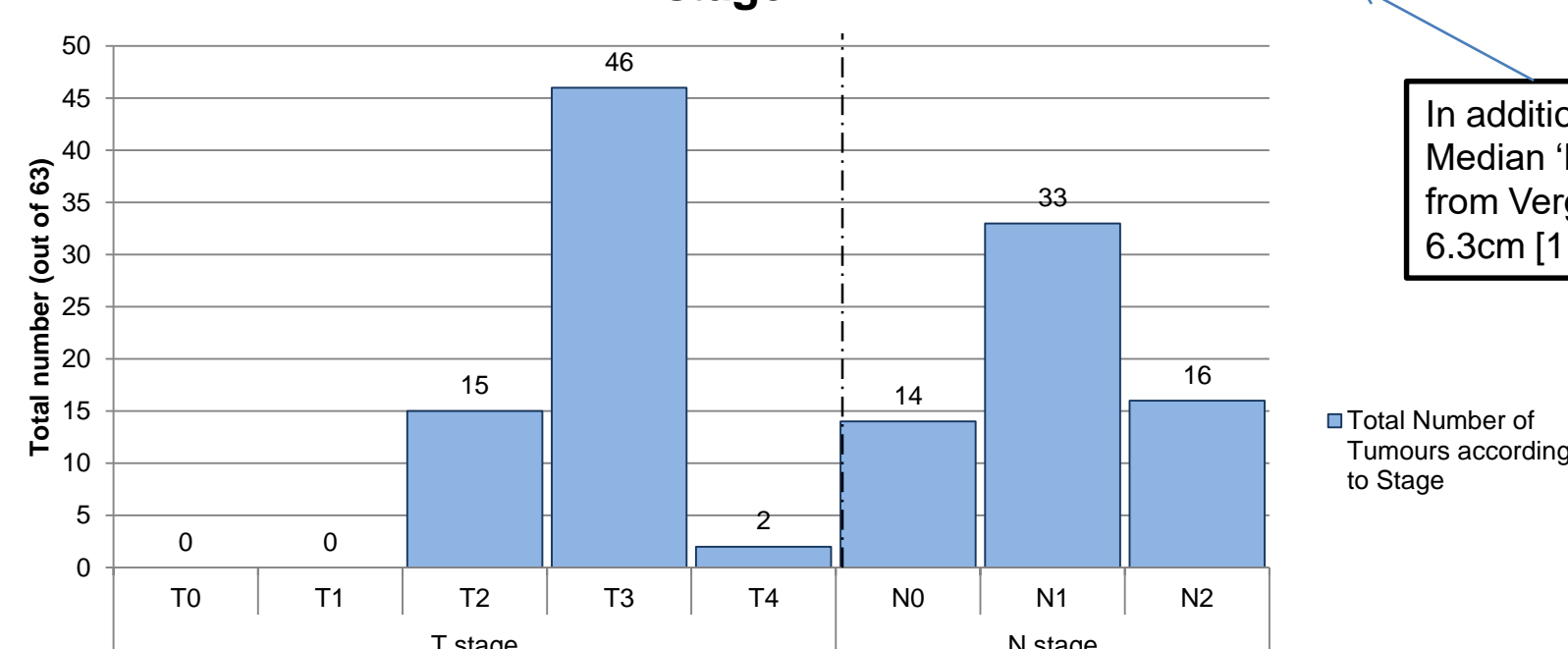


Chart 1. Bar chart summary of tumour characteristics based on T & N stage for WW selection

Primary Outcome	Results
Median Overall Survival	1103 days
Disease Free Survival	778 days
Recurrence Rate	27%
R0 Salvage Surgery Rate	83.3%
Distant Failure Rate	29.4%

Table 1. Table of summary results of Primary Outcomes

Results

As of July 4th 2020 278 out of 508 rectal cancer patients underwent long-course chemoradiotherapy. 74/278 NACRT achieved a complete response. 63 patients were selected for ‘Watch-and-Wait’ after a median of 97[88-124] days, whereas 11 opted for surgery. Overall survival amongst ‘Watch-and-Wait’ patients’ was 85.7% with a median overall survival of 1103[717-1484] days. The recurrence rate of these patients’ was 27.0%(17) of which the 5 developed distant metastases. Disease free survival in recurrences was 253 days after which 70.6% underwent salvage surgery -83.3% and 16.7% performed with R0 and R1 margins respectively.

Discussion

The results show that organ preservation with WW is an acceptable alternative but recurrence and metastatic rates are in-line with previous series. The incidence of salvage resections yielding R1 rates was 16.7%. Our data is a real world reflection and not registry based and hence may present a larger R1 resection rate than recently published series.

Conclusions

1. 27% of WW patients in this real world cohort developed recurrence and 5/17 failed distantly .
2. It is importance to create individual patient-centered treatment plans based on risk factors which lead to recurrences to correctly identify successful patients for Wait-and-Watch from unsuccessful
3. To guide and support patient preference and their decision-making autonomy to make a well-informed decision.

Contact

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References

1. Habr-Gama A, Perez RO, Nadalin W, et al. Operative versus nonoperative treatment for stage 0 distal rectal cancer following chemoradiation therapy: long-term results. *Ann Surg*. 2004;240(4):711-718.
2. *Journal of Clinical Oncology* 30, no. 15 (May 20, 2012): 1770-1776.
3. Lim, Y.J., Kim, Y. & Kong, M. Adjuvant chemotherapy in rectal cancer patients who achieved a pathological complete response after preoperative chemoradiotherapy: a systematic review and meta-analysis. *Sci Rep* 9, 10008 (2019). <https://doi.org/10.1038/s41598-019-46457-5>
4. Onaitis MW, Noone RB, Fields R, Hurwitz H, Morse M, Jowell P, McGrath K, Lee C, Anscher MS, Clary B, Mantyh C, Pappas TN, Ludwig K, Seigler HF, Tyler DS. Complete response to neoadjuvant chemoradiation for rectal cancer does not influence survival. *Ann Surg Oncol*. 2001 Dec;8(10):801-6. doi: 10.1007/s10434-001-0801-2. PMID: 11776494.
5. Smith, James D. MD*; Ruby, Jeannine A. MD*; Goodman, Karyn A. MD*; Saltz, Leonard B. MD*; Guillem, José G. MD*; Weiser, Martin R. MD*; Temple, Larissa K. MD*; Nash, Garrett M. MD*; Paty, Philip B. MD* Nonoperative Management of Rectal Cancer With Complete Clinical Response After Neoadjuvant Therapy, *Annals of Surgery*: December 2012 - Volume 256 - Issue 6 - p 965-972 doi: 10.1097/SLA.0b013e3182759f1c

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Background

- Locally advanced colorectal cancer (LACRC) is defined as T4, N0-2 and M0 tumours
- These frequently metastasize intraperitoneally and augur significant morbidity and mortality
- Expedited adjuvant intraperitoneal chemotherapy is delivered within one month after cytoreductive surgery
- This targets micro-metastatic deposits from the primary tumour which progress to peritoneal carcinomatosis
- We systematically reviewed the effect of expedited intraperitoneal chemotherapy delivered within a month of cytoreductive surgery on outcomes in LACRC

Objectives

This study aims to systematically review the effects of expedited adjuvant intraperitoneal chemotherapy in LACRC:

- Survival benefit – overall survival and progression-free survival
- Adverse effects

Methods

- A literature search of all studies indexed on the MEDLINE from inception to September 2020 was performed
- Only randomised controlled trials pertaining to participants with LACRC, and who received intraperitoneal chemotherapy within a month of cytoreductive surgery were included (*Figure 1*)

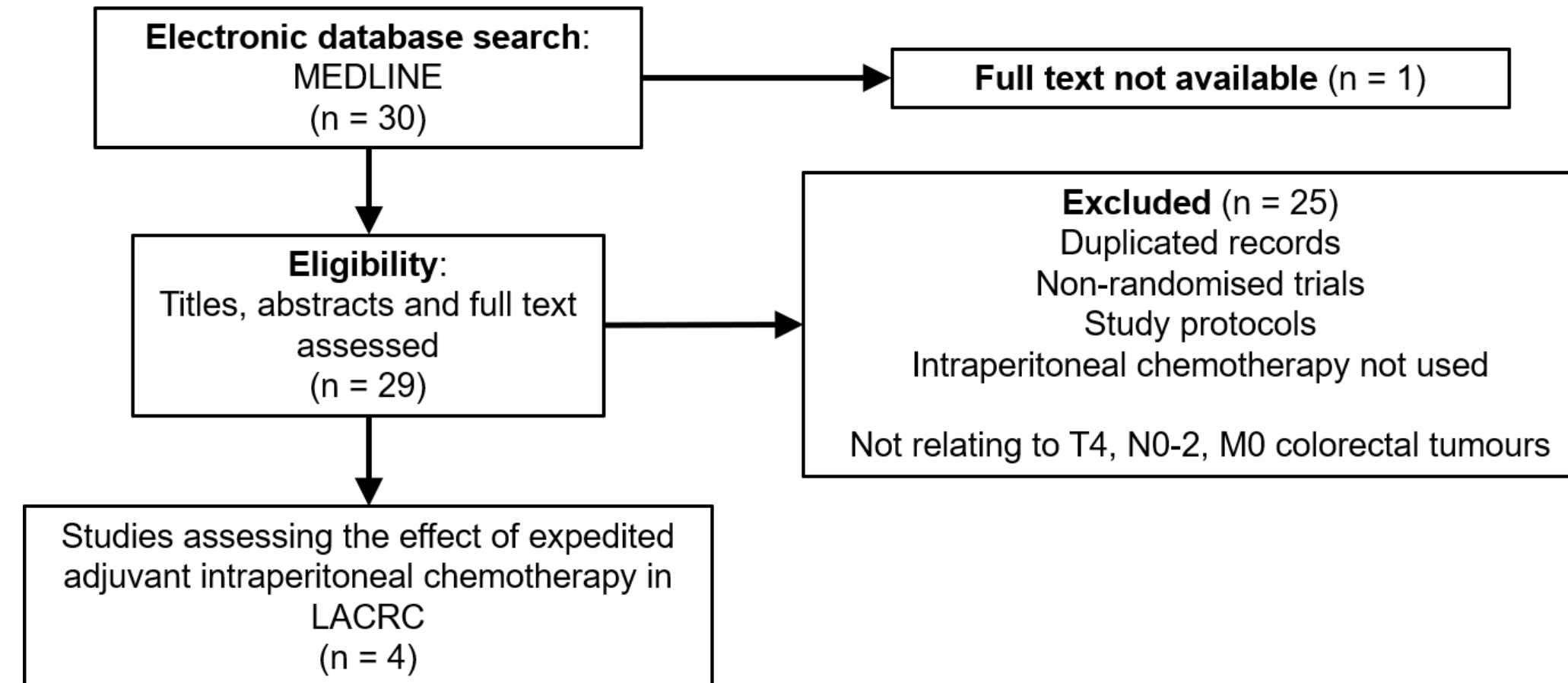


Figure 1. PRISMA flowchart depicting selection of studies for this review

Results

- Four randomised trials identified
- Outcomes for 2567 patients (*Table 1*)
- 622 patients received expedited intraperitoneal chemotherapy
- One study (Scheithauer, 1998) reported a significant survival benefit and reduction in peritoneal metastases in favour of adjuvant intraperitoneal chemotherapy
- Two studies (Vaillant, 2000 and Nordlinger, 2005) were suggestive of improved outcomes
- One study (Klaver, 2019) did not suggest improved outcomes
- Substantial heterogeneity in treatment protocols and measurement of outcomes was noted

Discussion

- This is the first review of adjuvant intraperitoneal chemotherapy in colorectal which considers the timing of its delivery and its use in T4 tumours
- Although the COLOPEC study (Klaver, 2019) does not support the use of adjuvant intraperitoneal chemotherapy, its internal validity has been called into question
- Evidence on expedited adjuvant intraperitoneal chemotherapy in LACRC obtained from this review is dated and limited, but points towards improved outcome

Conclusions

The study systemically reviewed four randomized controlled trials encompassing 622 patients receiving expedited intraperitoneal chemotherapy within a month of cytoreductive surgery. The results were suggestive of survival benefit and improved overall outcome, thereby highlighting the need for further randomised trials in expedited intraperitoneal chemotherapy.

	Klaver, 2019	Nordlinger, 2005	Scheithauer, 1998	Vaillant, 2000
Number of Participants	202	1857	241	267
Number of LACRC	175	735	116	88
Number receiving IPC	8	415	78	121

Table 1. The total number of patients, those with LACRC and those who received intraperitoneal chemotherapy for each study

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References

- Klaver CEL, et al. Locally Advanced Colorectal Cancer: True Peritoneal Tumor Penetration is Associated with Peritoneal Metastases. Ann Surg Oncol. 2018. doi: 10.1245/s10434-017-6037-6.
- Klaver CEL et al. and the COLOPEC collaborators group. Adjuvant hyperthermic intraperitoneal chemotherapy in patients with locally advanced colon cancer (COLOPEC): a multicentre, open-label, randomised trial. Lancet Gastroenterol Hepatol. 2019. doi: 10.1016/S2468-1253(19)30239-0.
- Nordlinger B et al. Adjuvant regional chemotherapy and systemic chemotherapy versus systemic chemotherapy alone in patients with stage II-III colorectal cancer: a multicentre randomised controlled phase III trial. Lancet Oncol. 2005. doi: 10.1016/S1470-2045(05)70222-9.
- Scheithauer W et al. Combined intravenous and intraperitoneal chemotherapy with fluorouracil + leucovorin vs fluorouracil + levamisole for adjuvant therapy of resected colon carcinoma. Br J Cancer. 1998. doi: 10.1038/bjc.1998.225.
- Vaillant JC, et al. Adjuvant intraperitoneal 5-fluorouracil in high-risk colon cancer: A multicenter phase III trial. doi: 10.1097/0000658-200004000-00001.

Poster 98. Retrospective analysis of risk factors for progression to fracture in patients with metastatic bone disease (MBD)

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LAY SUMMARY

Outcomes in metastatic bone disease (MBD) are better if surgery is undertaken before a bone lesion causes a fracture.

Current scoring systems to predict which metastases will fracture do not take into account patient variables and so are often inaccurate and lead to unnecessary surgery.

This pilot study determines the sample size required for a large multivariate analysis to determine which patient factors predict risk of pathological fracture in patients with MBD.

Background

Outcomes after surgery for bone metastases are better for prophylactic surgery than after patients sustain a pathological fracture^{1,2}.

Will this lesion fracture, Doctor?

There is a poor evidence-base for predicting risk of pathological fracture in patients with bone metastases.

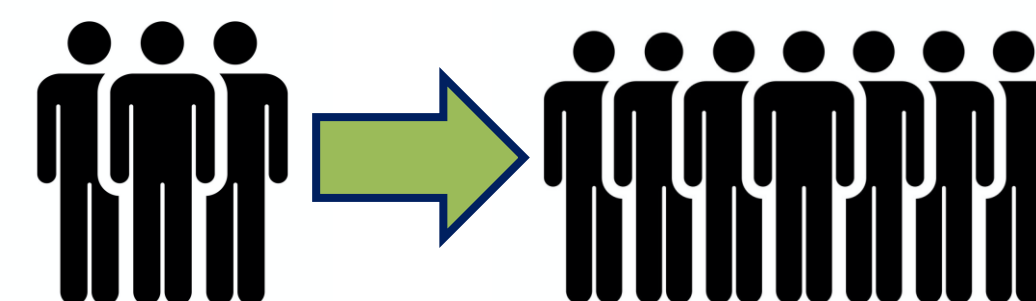
Radiological scoring systems like Mirels fail to incorporate patient-specific variables like primary cancer type and patient age^{3,4}.

Objectives

The aim was to identify predictors of fracture at 12 months in patients with long bone metastases.

Methods and Materials

This was a pilot study of 60 consecutive patients to power a larger multivariate regression analysis

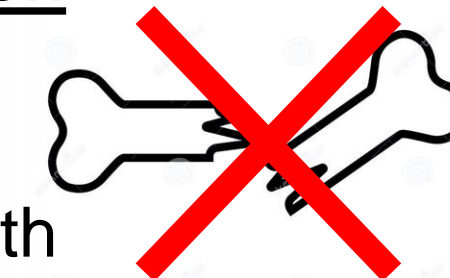


Inclusion

- New long bone metastasis
- Visible on x-ray/CT

Exclusion

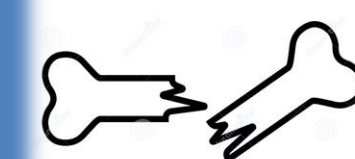
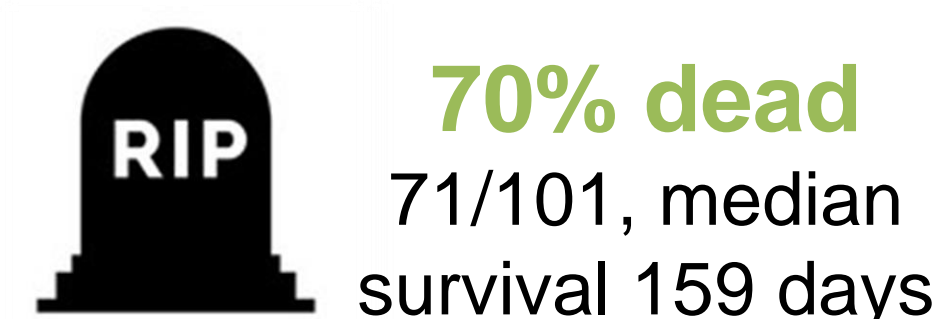
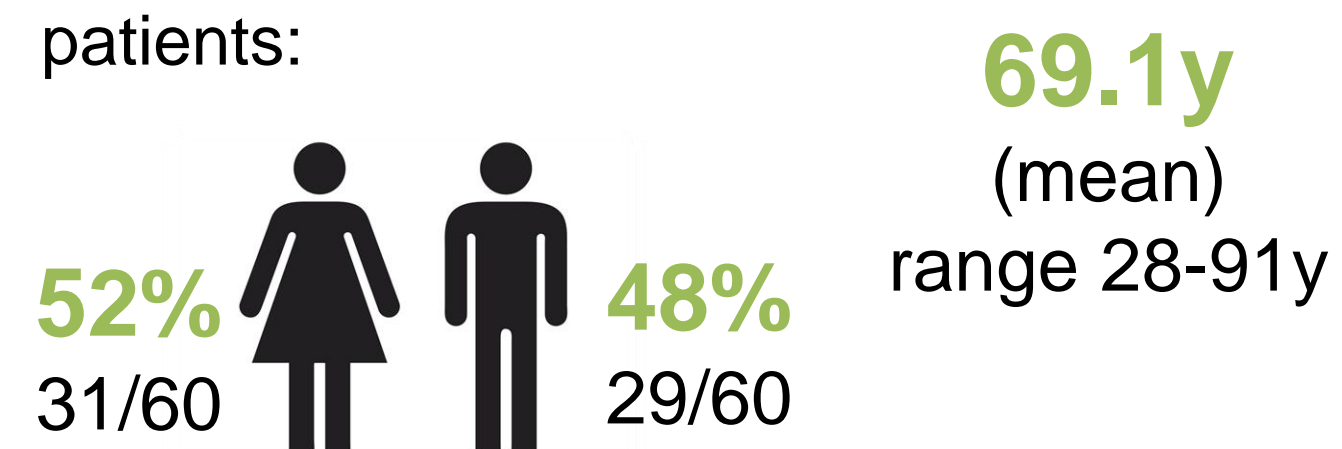
- Fracture
- Surgery/death within 3m of diagnosis



A literature review identified 15 potential predictors of fracture (Table)

Results

The pilot study included 101 lesions in 60 patients:



13.9% fracture rate at 12 months (14/101)

Results 2

In this cohort, factors associated with ↑ fracture rate included:

Mirels score (p=0.015) 27% vs 8% 9/34 Mirels ≥9 5/65 Mirels <9
 X-ray appearance (p=0.0017) 28% vs 2% 11/40 Lytic 1/42 Mixed

With a fracture rate of 13.9%, a sample size of 1055 lesions will identify which of the 15 variables of interest are associated with ↑ risk of fracture (95% confidence level, error margins 4-4.5).

Conclusions

Predicting risk of pathological fracture is vital in managing patients with bone metastases to avoid unnecessary surgery.

This pilot study has generated a recommended sample size to validate the 15 variables of interest, and provided early evidence for their utility in predicting pathological fractures.

TAKE HOME MESSAGES

- Current methods to predict risk of pathological fracture in bone metastases (e.g. Mirels) do not account for the high heterogeneity in patients with systemic cancer
- We have identified 15 patient variables that could influence risk of pathological fracture
- This pilot study demonstrates a 13.9% fracture rate, recommending a sample size of 1055 to investigate the 15 variables of interest

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THANKS TO:

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 PhD supervisors



REFERENCES

- ¹Jonas SC *et al.* Current orthopaedic management of bony metastases in the proximal third of the femur. *Hip International*. 2017 Jan;27(1):1-7.
- ²Khodabakus A *et al.* Surgery for metastatic lesions of the femur: good outcome after 245 operations in 216 patients. *Injury*. 2008 Apr;39(4):404-410.
- ³Mirels H. The classic: metastatic disease in long bones: a proposed scoring system for diagnosing impending pathologic fractures. *Clin Orthop Relat Res*. 2003 Oct;415:S4-S13.
- ⁴Van der Linden YM *et al.* Comparative analysis of risk factors for pathological fracture with femoral metastases. *J Bone Joint Surg Br*. 2004 May;86(4):566-73. PMID: 15174555.

Aims:

Postoperative atrial fibrillation (AF) after oesophagectomy is associated with pulmonary and anastomotic complications. Landiolol hydrochloride is an ultrashort-acting β 1-selective blocker that may prevent AF via its anti-inflammatory and β 1-adrenergic blockade effects. We aimed to perform a pilot systematic review, meta-analysis and trial sequential analysis of randomised trials to assess the level of current evidence for hypothesis synthesis.

Methods:

We conducted a search of electronic information sources, including MEDLINE; EMBASE; CINAHL; the Cochrane Central Register of Controlled Trials (CENTRAL); the World Health Organization International Clinical Trials Registry; ClinicalTrials.gov; and ISRCTN Register, and bibliographic reference lists to identify all randomised controlled trials (RCTs) comparing landiolol with placebo in patients aged >18 with pathologically confirmed oesophageal carcinoma undergoing planned transthoracic oesophagectomy. Fixed-effect model was applied to calculate pooled outcome data. Trial sequential analysis was performed to assess the possibility of type I or II error and compute the information size required for conclusive meta-analysis.

Results:

We identified two placebo-controlled randomised trials, enrolling a total of 139 patients. The included population were comparable in terms of age [67 vs 66, mean difference (MD): 1.32, 95% confidence interval (CI): -1.89, 4.53, $P=0.42$], gender [male: 73% vs 84%, odds ratio (OR): 0.53, 95% CI, 0.23, 1.23, $P=0.14$], hypertension (40% vs 45%, OR: 0.81, 95% CI: 0.41, 1.58, $P=0.53$), diabetes mellitus (40% vs 45%, OR: 1.28, 95% CI: 0.49, 3.33, $P=0.61$), intraoperative blood loss (364 ml vs 391 ml, MD: 42.21 95% CI: -9.56, 93.97, $P=0.11$), and operative time (498min vs 504min, MD: -12.46, 95% CI: -36.57, 11.65, $P=0.31$). The risk of postoperative AF was lower in landiolol group compared to placebo (9% vs 31%, OR: 0.21, 95% CI: 0.08, 0.55, $P=0.002$). The landiolol reduced postoperative heart rate significantly compared with placebo (MD: -11.00, 95% CI: -17.39, -4.61, $P=0.0007$) without any adverse effect on systolic (MD: -1.68, 95% CI: -8.17, 4.81, $P=0.61$) and diastolic blood pressure (MD: -1.87, 95% CI -4.74, 1.00, $P=0.20$). A low level of heterogeneity among the studies existed ($I^2=0\%$, $P=0.46$). The information size was calculated at 156 patients and trial sequential analysis showed that the risk of type 1 error was minimal.

Table 1. Baseline characteristics of the included studies

First author	Journal	Country	Design	Population	Exclusion criteria	Landiolol regimen	Control treatment	Detection of arrhythmias
Honkoshi 2017	Journal of Clinical Anesthesia	Japan	RCT	Patients undergoing oesophagectomy for oesophageal cancer	<ul style="list-style-type: none"> History of cardiac (e.g., arrhythmias including AF, conduction abnormalities) Antiarrhythmic medications including-blockers Recent angina pectoris or myocardial infarction) Pulmonary, or renal disease Thyroid dysfunction 	5 μ g/kg/min for 24 hours	0.9% saline solution as placebo	ECG during anaesthesia and the ICU stay
Ojima 2017	British Journal of Surgery	Japan	RCT	Patients undergoing oesophagectomy for oesophageal cancer	<ul style="list-style-type: none"> Need for dopamine Systolic blood pressure < 80 mmHg or >160mmHg Heart rate <50 beats per min Arrhythmias Need for ventilator assistance 	3 μ g/kg/min for 72 hours	5% glucose solution as placebo	ECG during anaesthesia and the ICU stay

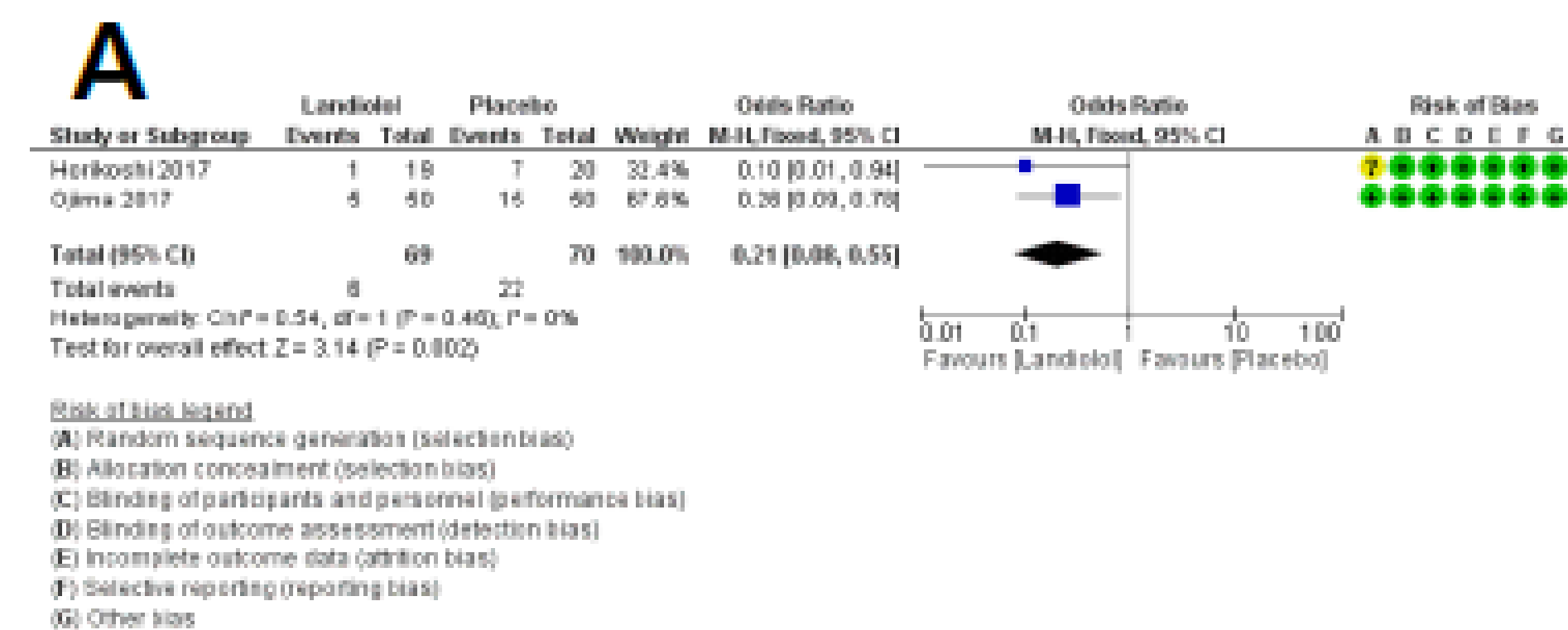
Table 2. Baseline characteristics of the included population

Baseline variable ¹	Landiolol	Placebo	Summary measure ²	P value ³
Age	67 (10)	66(8)	1.32 [-1.89, 4.53]	0.42
Male	51/69	59/70	0.53 [0.23, 1.23]	0.14
Female	18/69	11/70	1.89 [0.82, 4.39]	0.14
Hypertension	28/69	32/70	0.81 [0.41, 1.58]	0.53
Diabetes mellitus	11/69	9/70	1.28 [0.49, 3.33]	0.61
Operative time, min	498 (75)	504 (81)	-12.46 [-36.57, 11.65]	0.31
Blood loss, ml	364 (319)	391 (395)	42.21 [-9.56, 93.97]	0.11

* Odds ratio (OR) for dichotomous variables and mean difference for continuous variables

³ 95% confidence level

⁵ Mean (SD) for continuous variables and proportions for dichotomous variables



A) Forest plot of the comparison of atrial fibrillation. The solid squares denote the odds ratio (OR); the horizontal lines represent the 95% confidence intervals (CIs), and the diamond denotes the pooled OR.B) **Results of trial sequential analysis for atrial fibrillation.** B1) To the left, the red inward-sloping dashed lines make up the trial sequential monitoring boundaries. To the right, the outward sloping red dashed lines make up the futility region. The solid blue line is the cumulative Z curve. B2) The solid green line presents penalised Z value.

Conclusions:

The best available evidence suggests that landiolol hydrochloride is promising in prevention of postoperative AF in patients undergoing oesophagectomy. The available evidence is restricted to a very limited number of RCTs. There is currently no ongoing trial investigating effect of landiolol in postoperative AF following oesophagectomy. This review warrants a need for designing more RCTs and our results can be used as a robust pilot for generation of hypothesis in future trials.



Poster 113. Outcomes Following Addition Of Pain Team Member To Thoracic Multi-Disciplinary Team Morning Ward Round

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2020 BASO Annual (virtual) Meeting
21st – 23rd Nov

Background

- Post-operative analgesia post thoracic surgery is challenging despite the widespread adoption of minimally-invasive surgery¹
- The WHO pain ladder, whilst designed for treatment of cancer pain, provides a useful framework for the incremental addition of analgesics in order to achieve comfort²
- A system of multimodality and side-effect minimisation is desirable in acute post-operative pain
- Our local acute pain protocol is provided in Figure 1.

Methods and Materials

- We performed detailed retrospective analysis of all thoracic cases in the month prior to the change in practice in April 2018 and for same period 12 months later
- This included case mix, patient characteristics, pre-operative analgesia use and post-operative analgesia use
- Opiate prescriptions on discharge for our thoracic patients were analysed from January 2018 to September 2019

Month	2018	2019	
April	15	10	
May	19	2	
June	9	6	
July	6	3	
August	9	4	
September	4	6	
Mean (SD)	10.33 (5.64)	5.17 (2.89)	p=0.037

Table 1. Number of patients discharged on both quick and modified release oxycodone.

Discussion

- The advent of our new more integrated approach of having a member of the pain team on our morning rounds coincided with a reduction in strong opiate prescriptions as an inpatient and on discharge
- The process led to more rationalized decision making and discharge planning of analgesia at the start of the working day
- Whilst clearly multi-factorial, these changes contributed to positive outcomes and other units may wish to consider performing routine ward rounds with a pain specialist

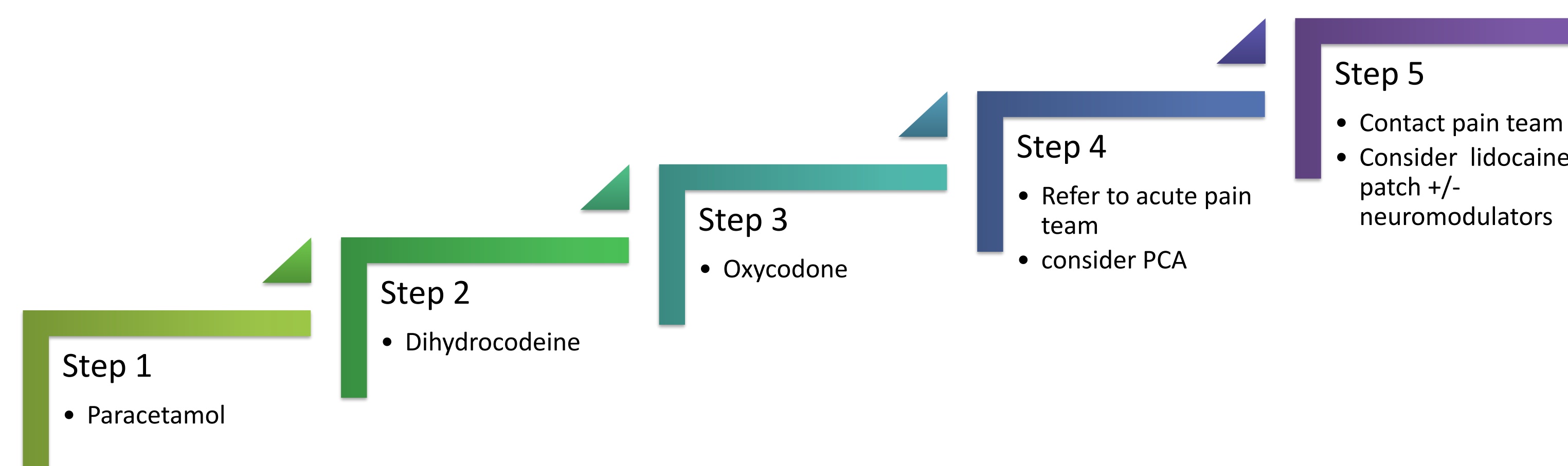


Figure 1. Liverpool Heart and Chest Hospital Acute Pain Protocol.

Objectives

- We anecdotally suspected we could improved our adherence to our analgesia protocol and there had been an increase in patients being discharged on strong oral opiates
- In April 2018 we introduced a routine pain team presence on our morning multi disciplinary team thoracic ward round
- We reviewed this change in practice with an emphasis on patients strong opiate usage (step 3 of our protocol)

Results

- We observed a reduction in patients taking both normal and modified-release oxycodone from 21 to 8 in March 2018 and 2019 respectively.
- This was despite similar patient characteristics, case mix and pre-operative analgesia use.
- Over a 6 month period in 2018 compared to 2019 we observed significant reduction in the percentage of patients being discharge on strong opiates (Table 1).

Conclusions

	Pain team presence on our thoracic MDT ward round was well received with positive staff and patient feedback.
	Whilst multi-factorial, we observed a statistical significant decrease in strong opiate usage on discharge and a more coordinated strategy to post-operative analgesia.
	This has prompted further study into these outcomes and we are currently collecting patient reported pain scores

Contact

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References

1. Timothy J P Batchelor, Neil J Rasburn, Etienne Abdelnour-Berchtold, Alessandro Brunelli, Robert J Cerfolio, Michel Gonzalez, Olle Ljungqvist, René H Petersen, Wanda M Popescu, Peter D Slinger, Babu Naidu, Guidelines for enhanced recovery after lung surgery: recommendations of the Enhanced Recovery After Surgery (ERAS[®]) Society and the European Society of Thoracic Surgeons (ESTS), *European Journal of Cardio-Thoracic Surgery*, Volume 55, Issue 1, January 2019, Pages 91–115
2. Ventafridda V, Saita L, Ripamonti C, De Conno F. WHO guidelines for the use of analgesics in cancer pain. *Int J Tissue React*. 1985;7(1):93-6. PMID: 2409039



Poster 115: Semi-structured healthcare professional interviews to explore their preferences for the assessment and optimization of older adults facing major gastrointestinal surgery

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Introduction

The health status of older adults varies considerably, meaning that determining best practice in this group is complicated and treatment requires tailoring to individual patients, not their chronological age(1). Lack of clear evidence-based guidelines for the assessment of suitability (“fitness”) for major GI surgery contributes to practice variation(2).

Adequate assessment of fitness and frailty and subsequent targeted peri-operative interventions to enhance resilience is often lacking(3). There is little published data on how healthcare professionals determine suitability for major gastrointestinal surgery and how they optimize them to improve outcomes(4). Understanding how clinicians make decisions and the value they place and availability of different optimisation strategies may help to understand variation in practice.

Clinician opinion factors heavily on patient decision-making and may form a substantial aspect of practice variance(5). The causes of this varying opinion are not known but may include personal experience, interpretation of the literature or unit protocols.

Objectives

This study aimed to explore the practices and attitudes of a wide range of healthcare professionals involved in the referral, assessment, optimization and rehabilitation of older patients undergoing major GI surgery to delineate barriers and facilitators to improving care.

Methods

Semi-structured qualitative interviews were undertaken with a range of healthcare professionals involved in the treatment, assessment and optimisation of gastrointestinal surgery patients across the South Yorkshire region. Ethical approval was granted by the Health Research Authority (ref: 19/HRA/5964) and local Research and Development approvals were obtained at individual NHS Trusts. Written informed consent was obtained prior to commencement of the interviews. Interviews were digitally recorded, transcribed verbatim and analysed for themes according to the Framework approach.

Healthcare professionals were selected across the spectrum of pre-, peri- and post-operative care, including Primary Care. Participants were selected to include at least one surgeon and one other healthcare professional from each unit. Participants had to be regularly involved in the care of patients undergoing major gastrointestinal surgery.

Interviews were conducted with reference to a pre-prepared interview schedule.

Results

Thirty-seven healthcare professionals (9 surgeons, 8 specialist nurses, 7 anaesthetists, 5 allied health professionals, 3 oncologists, 3 General Practitioners and 1 geriatrician) were interviewed across 5 hospitals in the South Yorkshire region.

Interviews lasted between 13 and 63 minutes, mean 30 minutes. 16/37 (43%) of participants were male. Three themes were developed with several sub-themes developed during interview analysis (Table 1).

Thematic analysis

Experience of assessment of suitability for major surgery

There was variation between clinicians, subspecialties and units in how patients are currently assessed, with variable provision of cardiopulmonary exercise testing, frailty and nutritional assessment. Opinion varied on whose responsibility it is to assess fitness for surgery and how decisions regarding fitness are made in the cancer MDTs.

“The vast majority of patients who we think there’s a realistic possibility of surgery have cardiopulmonary exercise testing That is then fed back into our weekly MDT meeting” Colorectal Surgeon

“PS is used for all patients. Whilst it is quite subjective we know that people with a poor PS will have a shorter life expectancy with chemotherapy than without” HPB Oncologist

“The MDT cannot generally make a decision about patient fitness because you do not have all the information needed in the first place” Colorectal surgeon

Commonly discussed barriers to adequate assessment included availability of relevant HCPs and time in their job plans, lack of interventions when deficits are identified and lack of routine screening.

“NICE guidance suggests that all outpatients are screened [for malnutrition] but that doesn’t happen in this hospital just for capacity issues I suppose really.” Dietician

“The reason we haven’t done it up until now is because there’s no point doing a frailty assessment if you’re not going to do anything about it...” Anaesthetist

Experience in optimizing older patients for major surgery

Many clinicians spoke of their efforts to improve patient pathways and the value they place in prehabilitation and optimization strategies.

“Sometimes prehabilitation is a measure of their commitment to get themselves better” Colorectal surgeon

““[Surgery School aims] to educate them on the things that they can actually change for themselves” Anaesthetist

Common barriers to optimisation included time within the existing cancer pathways, restrictive job plans of ACPs and having to make business cases for service improvements. Lack of evidence-based guidelines and evidence of clear benefit were cited as barriers to securing funding for prehabilitation programmes. Optimisation of patients presenting as emergencies is seen as particularly challenging and requires co-ordination of care.

“We currently have really poor access to dieticians, not because of dieticians, just because they’re too busy” HPB Oncologist

Decision-making in older patients

HCPs emphasized the importance of involving the patient and their family in discussions regarding treatment, particularly where there are concerns regarding poor outcomes after surgery. Many spoke about the effect of major surgery on functional abilities and that this will influence patient decision-making. Many spoke of the importance of symptom burden in older patients and that often they will accept higher risk if their symptom burden is high.

“To live longer you have to trade something and that something is often your quality of life” Anaesthetist

Theme 1: Experience of assessment of suitability for major GI surgery in older adults

Subthemes:	Examples
Usual practice in the elective setting	Use of CPET, self-completion questionnaires
Usual practice in the emergency setting	Frailty assessment, NELA scoring, functional ability
Barriers to assessment	Time within the cancer pathway, job plans
Facilitators to assessment	Redesigning pathways to put fitness assessment first
Attitudes towards high risk patients	Symptom burden, trade-offs, alternatives

Theme 2: Experience in optimising older patients for major GI surgery

Subthemes:	
Usual practice <ul style="list-style-type: none">Physical activityNutritionalPsychologicalCo-existing medical conditionsLifestyleGeriatricPeri-operativeRehabilitation	Advice given but limited access to prehabilitation programmes Limited access to dietician support, value of advice Role of CNSs, access to psychologists Role of protocols and guidelines Own practice regarding smoking cessation Access to geriatricians, role in emergency patients ERAS, laparoscopic procedures Role of allied health professionals, time in job plans
Barriers to optimisation	Constraints of the cancer timelines, emergency care disorganised and difficult to optimise
Facilitators to optimisation	Allied health professional input into cancer MDTs, co-ordinated post-operative care for emergency patients

Theme 3: Decision-making in older patients

Subtheme:	
Impact of age on treatment decisions	Fitness, function & frailty more important than age
Potential treatment trade-offs for high-risk patients	Symptom burden important determinant
Factors influencing decision-making	Role of allied health professional input, engagement
Challenges in emergency GI surgery	Time, physiology
Supporting patients to make decisions	Taking time for decisions, repeated discussions

Table 1. Themes and subthemes developed during analysis.

Discussion

This study demonstrates wide variation across a region in how patients are currently assessed and optimized for major GI surgery. Hospitals with Cardiopulmonary Exercise Testing services were more likely to be developing prehabilitation services and making efforts to re-design pathways to enable time for optimization. Many HCPs spoke of the need for geriatrician input into the management of high-risk or frail older individuals, particularly those presenting as emergencies, however lack of geriatricians in their hospitals prevented this. Geriatrician-led multidisciplinary input was viewed as important in co-ordinating post-operative allied health professional input, managing medical co-morbidities and facilitating discharge preparations.

Patients with benign disease and those presenting as emergencies often have higher levels of co-morbidity, dependency and frailty, but historically the care of these patients has not received adequate funding or attention in National audits.

Conclusions

Lack of evidence-based guidelines prevents the development of services and pathways. Difference in opinion between healthcare professionals regarding assessment and optimisation may account for some of the variation in gastrointestinal surgery outcomes observed in the UK.

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References

1. Turrentine FE, Wang H, Simpson VB, Jones RS. Surgical Risk Factors, Morbidity, and Mortality in Elderly Patients. J Am Coll Surg. 2006; doi:10.1016/j.jamcollsurg.2006.08.026.
2. The Royal College of Surgeons of England, Royal College of Surgeons. Access all ages. Rcs 2013.
3. Grocott MPW, Plumb JOM, Edwards M, Fecher-Jones J, Levett DZH. Re-designing the pathway to surgery: better care and added value. Perioper Med 2017; doi:10.1186/s13741-017-0065-4.
4. Sattarany P, Arora S, Sevdalis N. To operate or not to operate? A multi-method analysis of decision-making in emergency surgery. Am J Surg 2010; doi:10.1016/j.amjsurg.2009.10.020.
5. Morgan JL, George J, Holmes G, Martin C, Reed MWR, Ward S, et al. Breast cancer surgery in older women: outcomes of the Bridging Age Gap in Breast Cancer study. Br J Surg 2020; doi:10.1002/bjs.11617.

Poster 120: A study demonstrating the accuracy of a new triage system for breast cancer referrals during the Covid-19 pandemic in a tertiary hospital.

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Introduction / Background

The Covid-19 pandemic has led to a need for alternative methods of doctor-patient communication. Traditionally urgent or "2 week wait" referrals were booked directly into a manned clinic. During the pandemic however, most healthcare providers have utilised telecommunication to minimise face-to-face contact whilst continuing to provide essential services. At our institution, patients are being triaged by consultant breast surgeons to clinic or phone/video consultation on the basis of the referral letter. This triage system has gradually changed as the pandemic situation stabilised, with more emphasis placed on patient risk factors.

Objectives

This study aimed to assess the accuracy of this new triage process as it evolved at our hospital.

Methods and Materials

Data was collected prospectively from March 17th to June 30th 2020. This period of just over 3 months allowed an evaluation of the system to ensure it was valid and worth continuing. All breast patient referrals, having been triaged to either one-stop clinic, phone consultation or video consultation at Derriford Hospital, United Kingdom, were analysed. Electronic records were examined for clinic outcomes and histopathology results.

Results

871 referrals were received and analysed. 588 (67.5%) of referrals were triaged to phone consultation; 270 (31%) were triaged to one-stop clinic; 12 (1.4%) were triaged to video consultation; and 1 (0.1%) was reviewed as an inpatient. 64 (7.3%) cancers were confirmed on histopathology.

In March, 6 out of 8 cancers were triaged to clinic initially (75% sensitivity) with 44 out of 80 benign cases being triaged to phone consultation (55% specificity). 6 out of 42 patients with clinic appointments were diagnosed with cancer (14.3% positive predictive value [PPV]) and 44 out of 46 of phone consultations were benign (95.7% negative predictive value [NPV]).

In April, 16 out of 21 cancers were triaged to clinic (76.2% sensitivity) and 148 out of 178 benign cases were triaged to phone consultation (83.1% specificity). PPV was 34.8% and NPV 96.7%.

In May, 10 out of 13 cancers were triaged to clinic (76.9% sensitivity) and 163 out of 239 benign cases were triaged to phone consultation (68.2% specificity). PPV was 11.6% and NPV 98.2%.

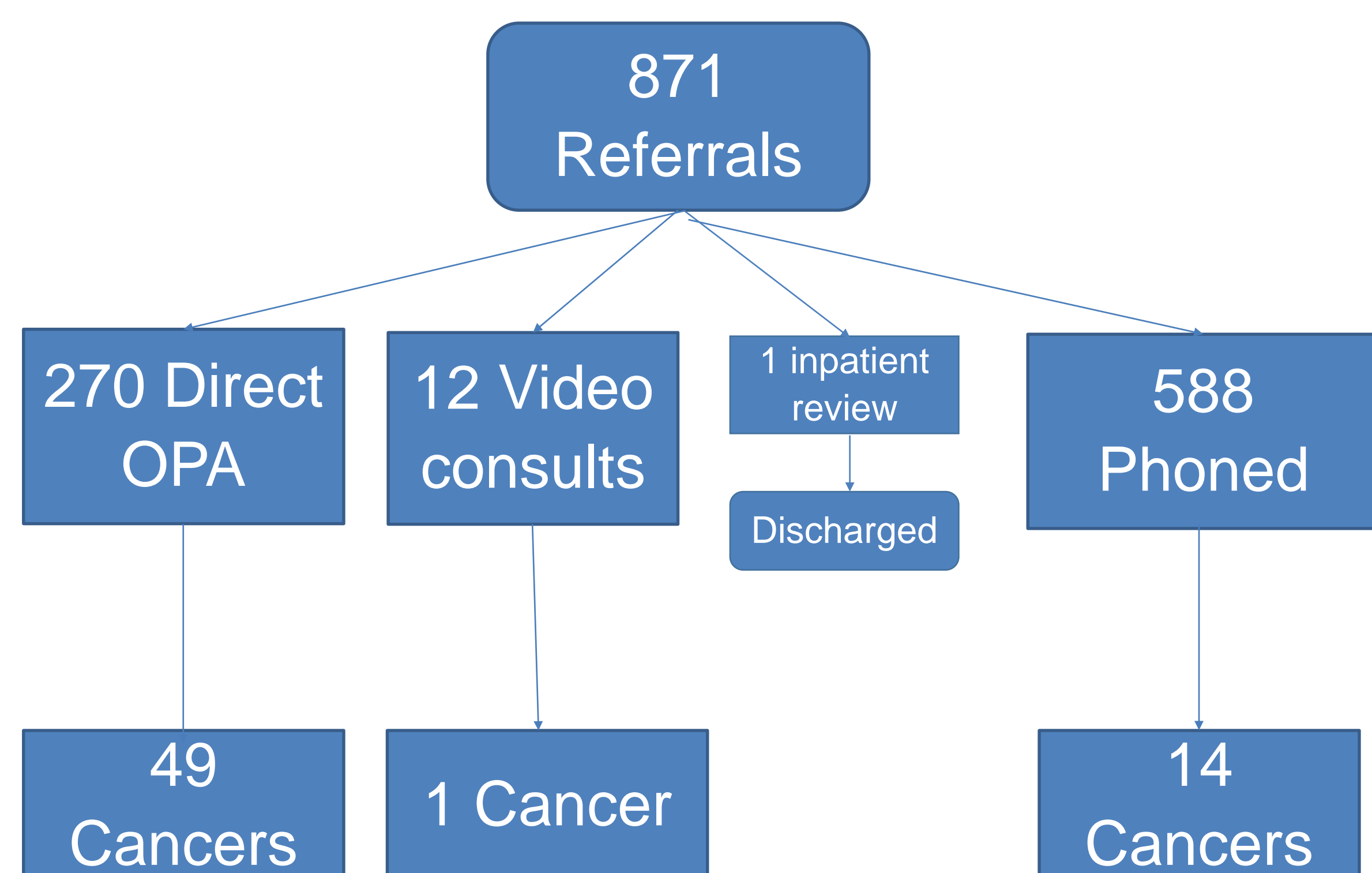
In June, 17 out of 22 cancers were triaged to clinic (77.3% sensitivity) and 230 out of 309 benign cases were triaged to phone or video consultation (74.4% specificity). PPV was 17.7% and NPV 97.9%.

Discussion

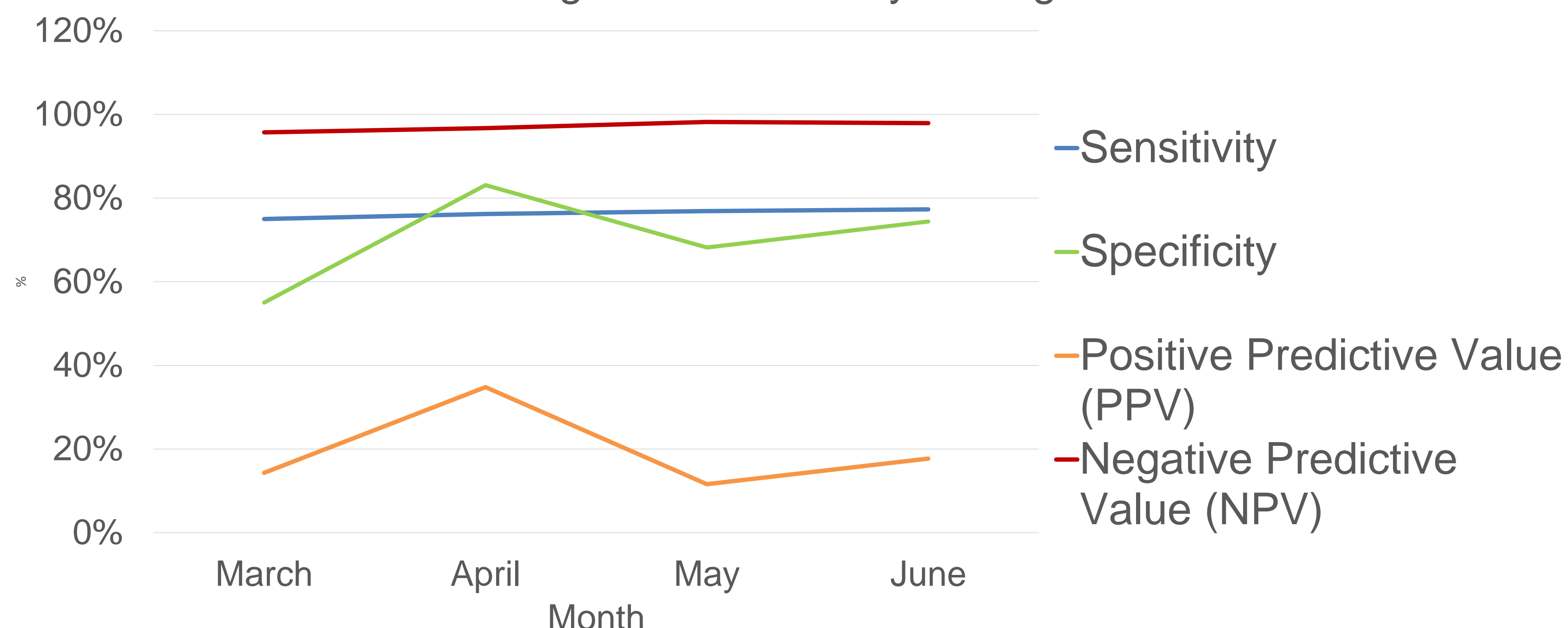
Whilst there is some variability in cancer numbers from month-to-month resulting in PPV fluctuation, sensitivity and NPV remain stable and improving, likely due to increased experience with triaging referrals with regards to the available resources and actual impact of Covid-19 locally. The initial expectation of a severe impact to services led to caution inviting more elderly or co-morbid patients to clinic, which has subsequently been less necessary as the situation stabilised.

Conclusions

This study demonstrates an improvement in the accuracy of the triage system as the process evolved. Despite switching to alternative forms of communication, there is ongoing and timely diagnosis of breast cancer from referrals. As such, given the long term and continuing implications of Covid-19 and the subsequent desire to keep hospital foot-fall as low as feasible, telephone and video consultation will continue to be utilised. Further analysis of the cost-effectiveness of this process will need to be performed however to ensure resources are allocated appropriately.



Progressive accuracy of triage



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Poster 121: Emergency Robotic Colorectal surgery – the new frontier; a case series study



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Introduction:

Robotic colorectal surgery is rapidly evolving as it addresses many of the technical and ergonomic limitations of laparoscopic surgery. The precision of robotic surgery results in smaller incisions, shortened hospital stay, less postoperative pain, and a much quicker return to normal, thus significantly improving patient experience. However the application of robotic surgery in the emergency setting remains very limited due to the logistical and organisational challenges and reluctance in adoption by the clinical teams. The aim of this study was to report the outcomes and early experience of emergency robotic colorectal surgery.

Method:

All consecutive patients having emergency robotic colorectal surgery at our institution over a 12 month period (October 2019 to September 2020) were recruited in this study. Data were collected from the electronic patient records.

Fig. 1: intraoperative views of vascular structures
1 Emergency robotic CME procedure

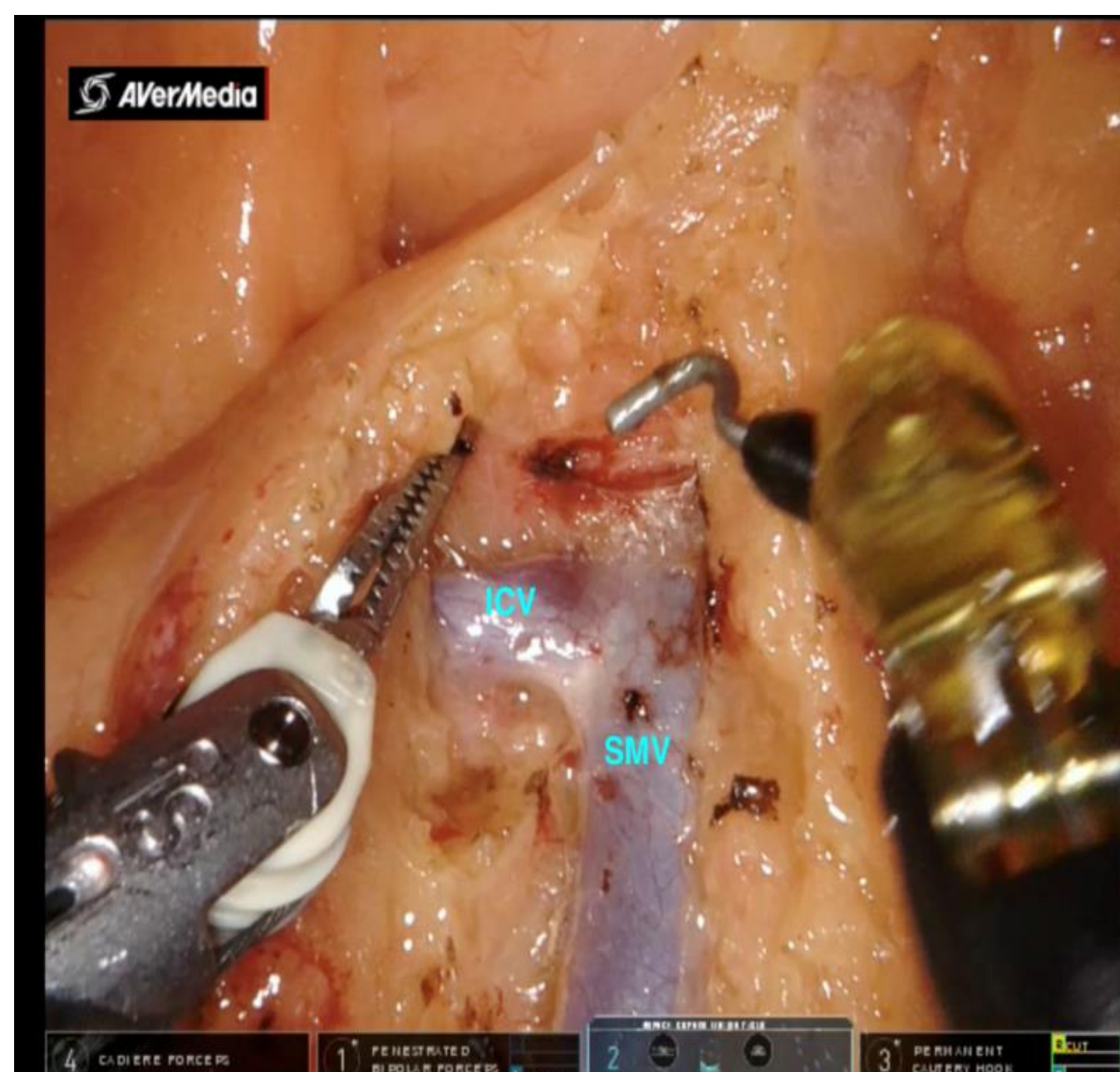
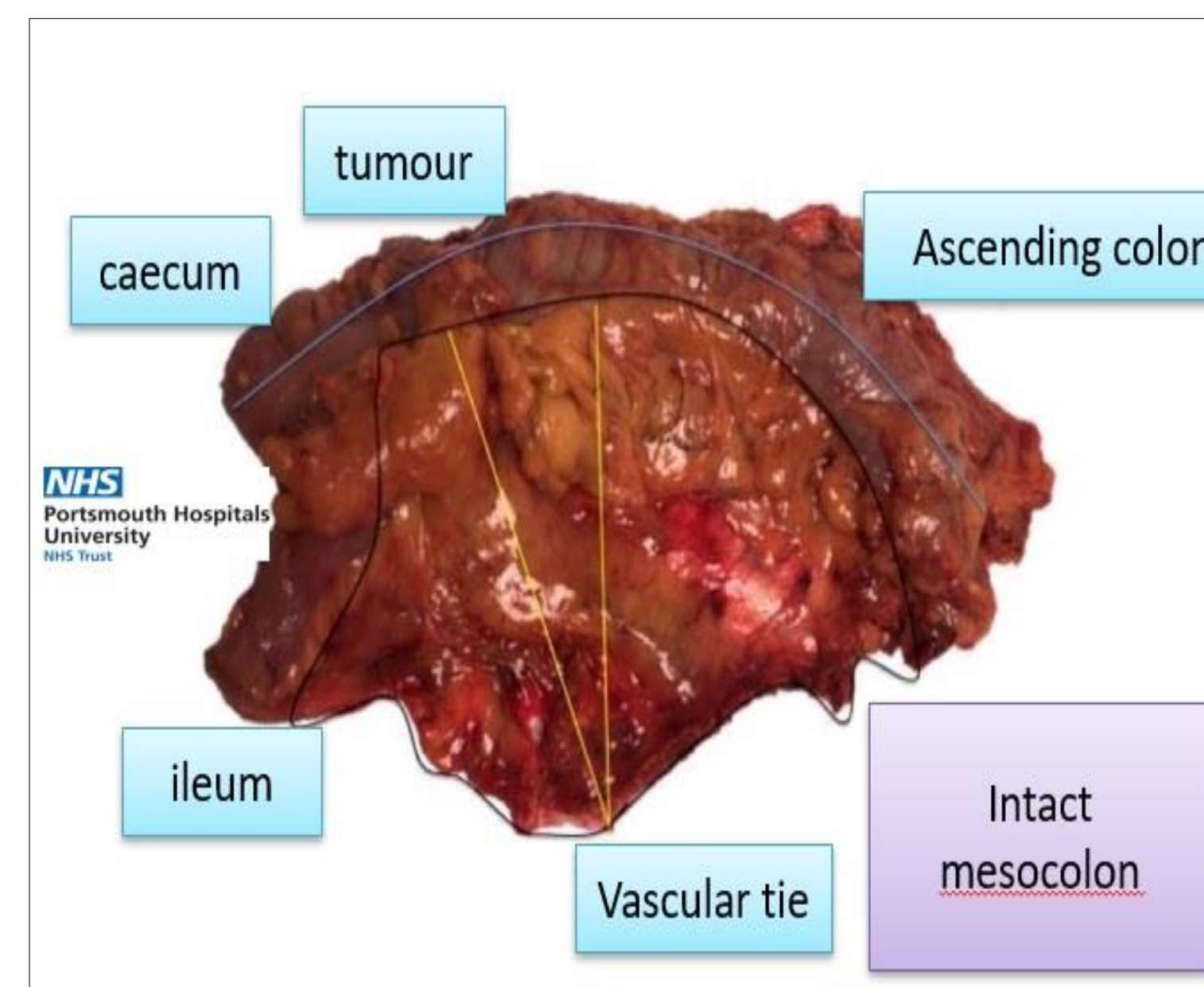


Fig.2: Quality assessment of the CME surgical specimen
(labelling and description)



Results:

Five patients were included in the case series.

Demographics:

- Median age: 68.8 years (36-83).
- 3 female and 2 male patients .
- Median BMI was 27.1 (range 19-41).
- All were admitted with acute abdomen.

Operations:

- 3 emergency robotic right hemicolectomy, with complete mesocolic excision for obstructing right sided colon cancer.
- 1 robotic anterior resection of colo-vesical fistula secondary to diverticular disease with a pelvic abscess.
- 1 robotic subtotal colectomy for acute toxic colitis with failure of medical therapy/

Outcomes:

- All cancer patients had R0 resection.
- Median lymph node count was 48
- Median operating time was 212 min (range 120-350 min)
- There were no grade III/IV complications and no 90-day mortality.
- 1 patient developed surgical site infection treated with antibiotics.

Conclusion:

Our case series highlighted that robotic colorectal surgery could achieve favourable outcome in emergency patients with acceptable operating times. Well led clinical teams with appropriate training can offer the benefits of robotic surgery to this challenging group of patients.