



Coloproctology procedure clinic: a novel service developed to reduce suffering of patients with bleeding per rectum

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Abstract

Aims Evaluation of the role and impact of introducing a dedicated coloproctology procedure clinic in tertiary referral colorectal unit.

Methods A retrospective analysis of 126 consecutive patients managed in the coloproctology clinic between March 2015 and September 2016 was carried out. All patients were preselected for attendance based on symptom-based protocol.

Results Based on the information available in GP referrals, 126 patients with bleeding per rectum with low risk of cancer were re-triaged from the general outpatient to dedicated coloproctology procedure clinic. Those patients accounted for 14% of waiting list. The average waiting time to attend clinic was 27 months from referral to undergoing definitive procedure. A proctoscopy or/and rigid sigmoidoscopy was performed in patients. Seventy-nine (89.7%) patients were completely managed and discharged after attending their first visit. Sixty-seven (76%) patients had 2nd- or 3rd-degree haemorrhoids and were treated with rubber band ligation (RBL) or phenol injection in outpatient setting. Two patients had an anal fissure and were managed conservatively with medication. After clinic, follow-up was through telephone clinic. This avoids attendance physically in the hospital. Symptoms persisted in nine patients and were subsequently scheduled for colonoscopy, three had benign polyps. With the introduction of the procedure clinic, the waiting time from referral to treatment was reduced from 27 to 6 months ($p < 0.05$).

Conclusions Establishing a dedicated “Coloproctology procedure clinic” is an effective strategy in reducing number of hospital visits per patient and hospital waiting list. This innovative clinic reduces utilisation of precious endoscopy unit resources. This ultimately will improve endoscopy efficiency.

Keywords Benign colorectal disease · Bleeding per rectum · Colonoscopy · Colorectal cancer · Haemorrhoids · Rubber band ligation

Introduction

Bleeding per rectum is one of the most common complaints encountered in general surgical practice. Many benign colorectal conditions such as haemorrhoids present with bleeding per rectum as their primary complaint. There is a very high prevalence of symptomatic haemorrhoids in the western world. This may be due to lack of fibre content in the diet. According to the Health Information and Quality Authority,

50% of the population in Ireland suffer from symptomatic haemorrhoids at some stage in their life. We are closely followed by UK where about 36% suffer from this condition as per the National Institute for Health and Care Excellence. However, colorectal cancer can also present with rectal bleeding. As a result, the patients end up having a colonoscopy.

The endoscopy services are already quite stretched because of the screening programme and patient volumes. The provision of a colonoscopy for all the patients with bleeding per rectum is a huge resource requirement. As a consequence of these compelling factors, the waiting lists in endoscopy centres continue to enlarge. For our clinic, we selected patients under 30 years of age with bright red bleeding per rectum, no red flag signs, no family history of bowel cancer, no change in bowel habits and no weight loss. These patients were selected in order to target patients that had a low risk of underlying neoplasia.

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The waiting time for patients with benign symptoms to be seen in clinic is multiple months. Once seen, they are placed on another waiting list for scopes. Thereafter, they wait again for more than 18 months for the endoscopy appointment and subsequent definitive procedure such as rubber band ligation. We conducted this study to see if carefully re-triaging patients with bleeding per rectum who have already been triaged as routine patients could be treated in a dedicated coloproctology procedure clinic. This could significantly reduce the waiting time for treatment for this cohort of patients. This strategy should reduce the hospital admissions and number of required outpatient and inpatient visits to the hospital. A secondary benefit of providing procedures in an outpatient clinic is to reduce the number of patients referred to the endoscopy department. It was hoped that by removing these patients from the endoscopy unit waiting list, we would free up slots for patients awaiting full colonoscopy. In our study, only 9 out of 126 patients ended up being referred for colonoscopies.

Methods

All referrals from general practitioners between March 2015 and September 2016 with bleeding per rectum which had been previously triaged as a routine attendee were re-examined and re-triaged against a predetermined protocol. According to which, all the patients with bright red bleeding per rectum, age less than 30, having no family history of bowel cancer and no red flag signs (weight loss, cachexia, tenesmus, obstruction) were selected for the procedure clinic. Figure 1 shows the flowchart explaining the protocol followed for patient selection.

The second pathway of the referral to anorectal procedure clinic was inpatient referrals. These were patients that were referred from gastroenterologists after colonoscopy where the diagnosis of haemorrhoids has been made and no procedure carried out. Finally, patients meeting the criteria who presented in the emergency department with thrombosed piles were also selected. Figure 2 shows the equipment required for the clinic.

The procedure clinic is conducted in a routine outpatient department with access to a procedure room. The facilities to perform rigid sigmoidoscopy, proctoscopy, rubber band ligation and injection sclerotherapy are present. Figure 1 shows the equipment required for the procedure clinic while Fig. 2 shows the dedicated room for the procedures. When all the referrals were re-triaged, 126 patients met the criteria over this time period and formal appointments were sent out. Eighty-eight patients attended the clinic and 38 did not attend. Figure 3 shows the procedure clinic room used for the clinic.

Results

During the periods between March 2015 and September 2016, 12 clinics were organised. One hundred twenty-six patients met the criteria and they were sent appointments. This resulted in scheduling more than 12 patients per clinic. Thirty-eight patients did not attend (DNA) the clinic leaving a total of 88 attendees. The reason given by 38 patients who did not attend clinic, when contacted by hospital, was that they have been waiting so long that symptoms were no longer present, and they did not feel the need to attend. Most of these patients were in the beginning of the procedure clinic, as waiting times were soaring.

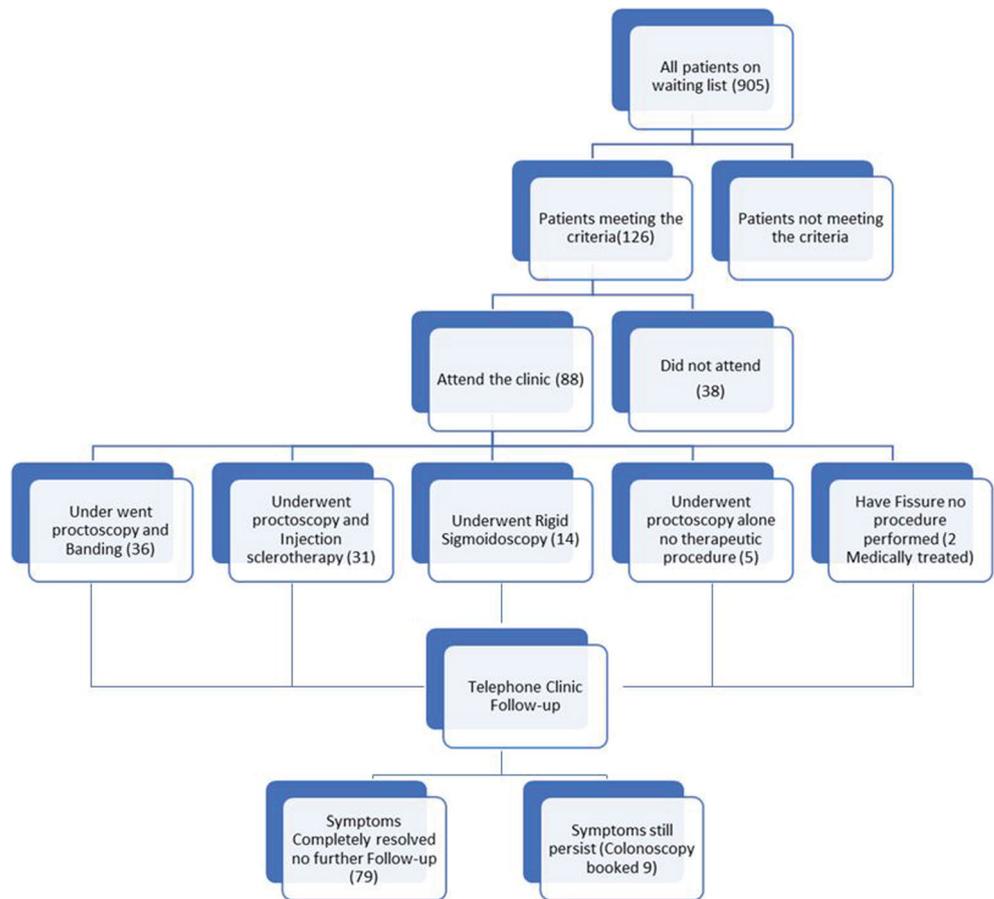
A total of 86 procedures were performed, with proctoscopy and haemorrhoidal banding being the most common. Banding was done in 36 patients. Thirty-one patients had treatment by proctoscopy and injection sclerotherapy. Rigid sigmoidoscopy was performed in 14 patients. Five patients underwent proctoscopy alone and no therapeutic procedures were performed. They were given re-assurance and discharged. Two patients were diagnosed with an anal fissure and no procedure was performed at all. These were treated conservatively with medication. All patients were followed-up in a virtual telephone clinic after 6 weeks. Seventy-nine (89.7%) had complete resolution of symptoms. Figure 4 summarises the results of the clinic.

In nine patients, symptoms did not resolve; these were offered colonoscopy. Instead of ordering 126 colonoscopies for 126 patients with bleeding PR, we ultimately ordered nine colonoscopies (chi-square test $p < 0.05$). Out of those nine patients requiring further colonoscopy, three had benign polyps and the remaining patients had a completely normal colonoscopy. The waiting time for this specific group was reduced from 27 months to 6 months (Fischer exact test $p < 0.05$).

Discussion

Bleeding per rectum is the most common symptom of haemorrhoids accounting for 90.5% of the patient's presentations [1]. Similarly, the presentation of fresh rectal bleeding also accounts for 1–17% of symptoms from colorectal cancer. Faecal occult blood is more indicative of colorectal cancer or the presence of polyps rather than fresh rectal bleeding [2, 3]. It is estimated that 36.4% of the UK [4] population and around 50% of the Irish population (HIQA statistics 2014) will suffer from haemorrhoidal problems at some stage in their life. Studies have also shown that many healthy young people have fresh bright red bleeding and they do not seek any medical help. This is presumably because it settles over a period of time and patients dismiss it thereafter [5]. Also, studies have shown that colorectal cancer is rare in the younger population.

Fig. 1 Flow chart showing the protocol followed in selecting patients for the procedure clinic



In 2005, 53,007 deaths were recorded in the USA due to colon cancer and out of that 725 (1.3%) were patients below the age

of 40 [6]. Sigmoidoscopy is deemed as a sufficient investigative procedure for younger patients with a rectal bleed if the

Fig. 2 Equipment required for the procedure clinic

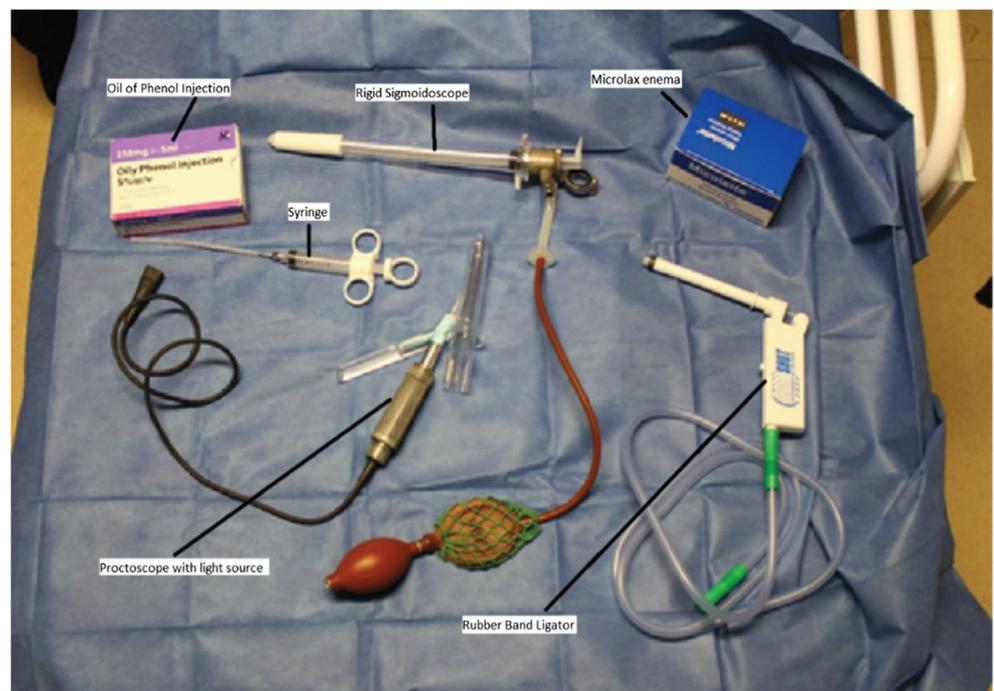


Fig. 3 Room for procedure clinic including procedure table, light source and suction machine



definitive cause of bleeding could not be found on anoscopy (NICE guideline) [7, 8]. The selection of these young patients with a minimal risk profile was the target cohort for our procedure clinic.

Colon cancer is the second most common cause of cancer-related deaths in the USA after lung cancer [9]. Screening for colon cancer has proven to reduce mortality in this deadly disease. These studies have shown that the overall mortality can be reduced by 23% [10]. Furthermore, screening can reduce mortality by 33% if done yearly or 15–18% if done twice yearly [11]. There should be no debate on the efficacy of screening. It is a very potent and important tool in reducing mortality in patients at risk. This tool should be used in the

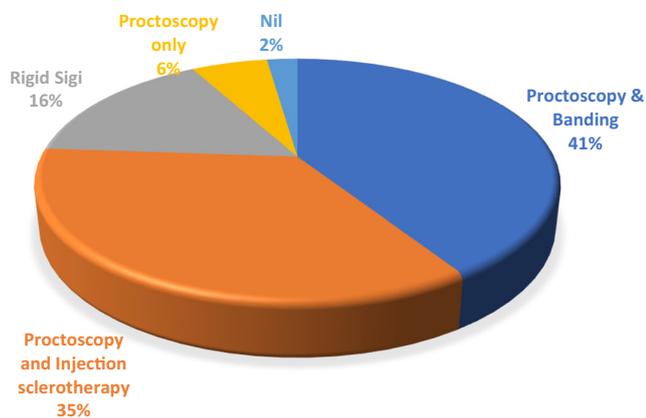


Fig. 4 Pie chart of procedures performed displaying proctoscopy and rubber band procedure is the most commonly done procedure, the rest of the procedure and their contribution also shown

patient population where it is justified to get maximum results. The challenge is to reduce the necessity of invasive procedures such as colonoscopy in the “worried well” population and avoid overburdening our endoscopy services with unnecessary referrals.

The extra burden that can be put on endoscopy services by requesting unnecessary appointments for colonoscopies can significantly impact an endoscopy unit to deliver an efficient service. This in turn may result in failures in national screening programmes. This can be seen by the annual reports of Cancer Research UK which shows that only England in UK is able to achieve its target of 14-day wait time from referral to procedure while Wales, Scotland and Northern Ireland fail to do so. The same situation can be seen in the Republic of Ireland where only 63.1% of patients got their colonoscopies in the designated target time as per the first published report of the National Bowel Screening Programme for 2012 to 2015. From these reports, the population which has a very high risk of bowel cancer (98.7%) [6] is not able to get the investigation they most require in a timely fashion. This is despite the evidence that timely referral has proven to reduce cancer-related mortality [10]. Endoscopy services are a finite and valuable resource. The overburdening of endoscopy unit facilities with requests that are either unwarranted or could be dealt with in an outpatient clinic is a recipe for inefficiency and prolongation of waiting lists. We would content that patients that have underlying benign anorectal symptoms or have very low risk of colorectal cancer could be managed in an outpatient setting [6].

First- and second-degree haemorrhoids can be managed by rubber band ligation and fibre supplements [12, 13]. Up to

three haemorrhoids can be banded at one session [14–16] with safety and efficiency. On long-term follow-up of patients after RBL, there is 80% satisfaction and 69% patients are symptom free at 5 years [4, 17]. Regarding the remaining 31% patients, two thirds reported improvement of symptoms after RBL and only 10% required some form of excisional haemorrhoidectomy [18, 19]. Moreover, colonoscopy is an invasive procedure with potentially serious complications. Thirty-three percent of patients report some sort of transient gastroenterological symptoms after colonoscopy. A systematic review of 12 studies with 57,742 pooled patients reported serious complications in 2.8 per 1000 patients [20] and another study reported it to be 0.35% [21]. Colonoscopy is also not infallible. It is an operator-dependent modality with well-documented cancer miss rates of 4 [22]–6% [23]. The adenoma miss rates are at around 22.8% [24]. Again, this emphasises the importance of a protocol-driven, evidenced-based approach to patient selection.

If one is to consider why patients with a low-risk profile are being considered for an invasive procedure such as colonoscopy, one has to look at the increasing trend to practice defensive-based medicine. The fear of missing a lesion despite an evidence-based approach to selecting patients for proctoscopy alone remains both an educational and a clinical challenge for the modern surgeon. The fear of litigation promotes over investigation and is a very deep-rooted problem in many health systems. Considered a global phenomenon, physicians all over the world confess to over investigation of their patients from the fear of malpractice claims. The societal culture of blame is forcing doctors to practice defensive medicine. Defensive medicine is a deviation from sound medical practice mainly due to fear of litigation [25, 26]. Ninety-eight percent gastroenterologists in Japan accepted practicing defensive medicine while 91% accepted unnecessarily referring patients to other specialities [27]. A similar kind of practice was found in UK hospital doctors [28], Israel [29], USA [30] Italy [31] and many other countries. Within the practicalities associated with delivering a new service such as our procedure clinic, it is clear that the selection criteria should be transparent, robust and evidenced based.

Patients should be properly triaged prior to considering them for invasive procedures. This is particularly true for colonoscopy which carries morbidity and mortality. In the introduction of a new service, we have been conservative in our selection criteria for choosing patients to attend our clinic. By employing strict guidelines and hospital-approved protocols, one would hope to alleviate risk exposure both for the clinician and most importantly for the patient. By introducing a protocol-driven service for benign anorectal bleeding, we believe it represents a step in the right direction which will help reduce the burden on our health system. Most importantly, we

have reduced patient waiting times, decreased patient attendance requirement and indirectly lightened the load on our endoscopy waiting list.

Conclusion

Our experience with introducing a dedicated colorectal procedure clinic has been very positive. It has helped us in reducing the prolonged waiting list period for receiving intervention in a specific patient group. It has inadvertently also aided in reducing the burden on our endoscopy services. By carefully re-evaluating the GP referrals, suitable patients certainly benefit from attending this clinic. This innovative clinic can help reduce waiting times for patients between referral and treatment. It represents a further piece of the jigsaw puzzle in trying to find a solution to our ever-growing waiting lists.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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