

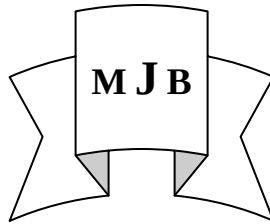
The Use of Barron Band Ligation in the Treatment of Rectal Polyps (A Prospective Study of 56 Cases)

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Abstract

Background: Many local procedures had been described for the treatment of rectal polyps by a lot of centers throughout the world including staplers, local fulguration, transanal endoscopic microsurgery (TEM), etc. We tried using Barron band ligation for the purpose of removing these polyps as a new application for this procedure which has been used previously as one of the standard procedures for the treatment of hemorrhoids.

Methods: In the period between the 18th of April 2001 and the 27th of September 2008, 56 patients with rectal polyps had them removed using Barron band ligation in the outpatient clinic under simple analgesia and direct proctoscope vision and the excised polyps had been sent for histopathology study. Mean follow up time was 36 months to detect any recurrence or complications of the procedure.

Results: 48(86%) were males and 8(14%) were females. 51(91%) of the polyps had been discovered to be benign and 5(9%) malignant. 2(4%) had bleeding postoperatively, 3(5%) had urological symptoms and many had suffered a simple postoperative pain that responded to simple analgesia. No recurrence had been reported after a mean follow up time of 36 months.

Conclusion: Rubber banding ligature is:

A safe and easy procedure.

Associated with an acceptable low complication rate.

Can be performed in an outpatient clinic and needs only simple analgesia.

Has a high cure rate for rectal polyps.

الخلاصة

المقدمة: لقد تم وصف الكثير من الطرق الموضعية لعلاج الزوائد اللحمية في الشرج في مراكز مختلفة حول العالم مثل الكابسات الجراحية والكوي الموضعي والعمليات الناضورية الموضعية للمستقيم الخ. لقد حاولنا استخدام الحلقات المطاطية لغرض رفع هذه الزوائد كتطبيق جديد لهذه الآلة التي يتم استخدامها كطريقة لعلاج البواسير الشرجية .

طريقة البحث: خلال الفترة من الثامن عشر من نيسان ٢٠٠١ و السابع والعشرين من ايلول ٢٠٠٨ لقد تمت دراسة ٥٦ مريض لديهم زوائد لحمية في الشرج باستخدام الحلقات المطاطية لبارون في العيادة الخارجية مع مسكن الام بسيط و منظار المستقيم وقد تم ارسال الزوائد المرفوعة للدراسة النسيجية . لقد كان معدل فترة المتابعة ٣٦ اسبوع لكشف اي عودة للمرض او مضاعفات العملية.

النتائج: ٤٨(٨٦%) من المرضى كانوا من الذكور و ٨(١٤%) من الاناث. ٥١(٩١%) من الزوائد اللحمية كانت حميدة و ٥(٩%) كانت خبيثة. ٢(٤%) حصل لهم نزيف بعد العملية و ٣(٥%) اعراض جانبية في المسالك البولية و العديد حصل لهم الام بسيطة في الشرج وقد استجابت لمسكنات بسيطة . لم يتم كشف اي حالة رجوع للمرض خلال فترة المتابعة البالغة ٣٦ شهر .

الاستنتاج: ان الحلقات المطاطية تعتبر طريقة امينة وبسيطة مع نسبة قليلة ومقبولة من الاعراض الجانبية وهي تجرى في العيادة الخارجية و تحتاج الى مسكنات الام بسيطة لاغير مع نسبة شفاء عالية.

Introduction

Polyps A polyp is a nonspecific clinical term that describes any projection from the surface of the intestinal mucosa regardless of the histological nature [1].

Classification of polyps [2]

Class

Varieties

1. Inflammatory

2. Metaplastic Metaplastic or
Hyperplastic

3. Hamartomatous Peutz- Jegherz

4. Neoplastic Adenoma:

Tubular

Villous

Tubulovillous

Adenocarcinoma

Carcinoid

Adenomatous polyps are common occurring in up to 25% of the population older than 50yrs of age in the USA. The risk of malignancy is related to the size and type of the polyps. Tubular adenomas are associated with malignancy in nearly 3% of cases; where as villous adenomas may harbor cancer in up to 40%. Invasive carcinomas are rare in polyps smaller than 1 cm. The risk of carcinoma in a polyp larger than 2 cm is 35-50% [3].

Banding

Rubber band ligation can be performed in the office without sedation therapy through an anoscope using a ligator. Patients should be instructed to return to the emergency department in case of delayed or undue pain, inability to void or fever [3].

Patients and Methods

Removal of rectal polyps had been performed for 56 patients between the 18th of April 2001 & 27th of September 2008.

Procedure

In an outpatient clinic, patients had been given Diclofenac 75mg (or in a dose of 1mg/kg in children) i.m and the procedure had been performed with the males put in knee-elbow position and the females in left lateral position. Then the proctoscope had been introduced to display the rectal polyps. Then the polyps had been grasped, put into the ligature and the trigger pulled. The band had been forced into the base of the polyp. The band should be applied at least 2cm above the dentate line to prevent immediate pain.

After 7-10 days the strangulated rectal polyp sloughs off leaving an ulcer. The excised rectal polyps had been sent for diagnosis in a trustable histopathology lab.

Results

56 patients had been treated using Barron banding ligature in an outpatient clinic and the removed tissue had been studied histopathologically. 48(86%) were males and 8(14%) were females. 5(9%) of the polyps had been discovered to be malignant and 51(91%) benign.

2(4%) had bleeding postoperatively. One of them had responded to conservative treatment while the other needed surgical ligation of the bleeding point.

3(5%) of the patients had urological symptoms like hesitancy, urine retention and frequency.

Many of the patients had suffered a simple postoperative pain and discomfort that responded to simple analgesia like NSAID in few days.

There had been no reported recurrence of the rectal polyps after a mean follow up time of 36 months and there had been no reported case of rectal sepsis.

Histopathological diagnosis

1. Juvenile rectal polyps	18(32%)
2. Adenomatous polyps	17(30%)
3. Inflammatory polyps	8(14%)
4. Hyperplastic	8(14%)
5. Adenocarcinoma	4(7%)
6. Squamous cell carcinoma	1(2%)
Total 56	

Discussion

All over the world there had been a trend toward using local techniques for the removal of rectal polyps e.g. Radiofrequency ablation [4,5], cryosurgery [6], staplers [7,8] and in case of polyps in the upper 2/3 of the rectum, transanal endoscopic microsurgery [9-13]. The last technique can provide a safe cancer free margin. In Iraq there is limited access to those new techniques and in the present study removal of the rectal polyps using Barron banding had been tried in carefully selected cases.

Banding is one of the local methods which have been shown to be an effective, safe method for the removal of rectal polyps with limited complications and recurrence rate. In the present study only 2(4%) of the studied cases had bleeding which responded to only simple compression and needed no blood transfusion. These results are comparable to a study in China [13] and two other studies in Italy [14,15]. Some mild rectal pain and swelling has also been reported in 90% of the patients that responded to NSAID for one or two days. In support of our results a study performed in the USA showed that

successful removal of rectal polyps by local measures had been achieved in 71/73(97.3%) [16].

It should be kept in mind that not all rectal polyps are suitable for removal by local measures as their removal would be difficult causing undue complications and recurrence and these include sessile polyps, large polyps (more than 4cm) and those distant from the anal verge. In these cases transanal endoscopic microsurgery may be a good option [17, 18]. Local measures may even be effective in case of early colorectal cancer [5].

No recurrence had been reported. These results are excellent especially when compared to another research performed in the USA showing recurrence rate of 22 % [20]. This better result has been probably due to the care taken in choosing only the early cases.

Banding can even be used for the removal of malignant polyps in highly selected cases with good results [21].

The patients selected for local removal of rectal polyps should be cooperative, educated and should not be of the high risk group. High risk group patients include:

1st degree relative with rectal cancer.

Smoking

Moderate to high current alcohol intake.

Reduced risks of colorectal cancer are:

1. High cereal fiber intake.

2. High Vit. D intake.

3. NSAIA [22]

Conclusions

Rubber banding ligature is:

A safe and easy procedure.

Associated with an acceptable low complication rate.

Can be performed in an outpatient clinic and needs only simple analgesia.

Has a high cure rate for rectal polyps.

References

- 1.Schwartz,M.D.,et al: Principles of Surgery ,8th Edition ,McGraw-Hill, New York,1999 pp 1086-1087.
- 2.Neil, J.: The Small and Large Intestine in Short Practice of Surgery, R.C.G.Russell, 24th Edition ,Arnold, London , 2004,p1175.
3. Nelson, H., Cima, R.: Anus in Sabiston Textbook of Surgery, Courtney, 18th Edition, Saunders, Canada, 2008, pp1441-1442.
4. Gupta, PJ. Radio surgery a new tool in proctology practice,Bratisl Lek Listy, 2004.
5. Gupta, PJ. : Radiofrequency surgery – novel techniques in the treatment of anorectal disease, Acta Chir Lugosl, 2006.
6. Liska, WD.: Anorectal and Perianal cryosurgery, Vet Clin North Am Small Anim Pract. 1980 Nov.
7. Allison, SI. et al:Per anal excision of large rectal adenomas using an endoscopic stapler, J R Coll Surg Edinburgh 2001 Oct.
8. Buess, G., et al: Transanal endoscopic microsurgery of the rectum-testing a new method in animal experiments, Leber Magen Darm.1983 Mar, pp73-7.
9. Boltri, F., et al: Transanal polypectomy using a TEM (transanal endoscopic microsurgery) Technique. Minerva Chir ,1993 Oct 31.

10. Von Flue,M.,Harder,F.:Transanal endoscopic microsurgery indications and limitations,Schweiz Med,1994,oct 15.
- 11.Madhala,O.,Lelcuk,s.,Rabau,M.:Transanal endoscopic microsurgery for local excision of rectal neoplasms, Harefuah, 1995 Oct.
12. Stipa, S., et al: Local excision of rectal tumors with transanal endoscopic microsurgery, Tumori, 1995, May.
13. Qiu, HZ. et al: Transanal endoscopic microsurgery for the treatment of localized rectal neoplasms , Zhonghua Wai Ke Za Zhi,2009 Jul.
14. Di Mauro, S., et al: Transanal resection of low rectal neoplasm, Minerva Chir .2001 Apr.
15. Fiducia, G., et al: Protruding isolated rectal and anal neoplastic polyps removed by local transanal excision, Chir Ital.2008Mar-Apr.
16. Pillai, R.B: Colonic polyps in children, Clinical Pediatrics, vol.37, 1998, pp253-257.
17. Lal, G.: Familial Adenomatous Polyposis, Surgical Oncology, 2000, pp314-323.
18. Otsuji, E., et al: Transanal excision of a large rectal polyp assisted by transsacral manipulation of the rectum, Dis Col Rectum, 2004, Aug.
19. Ritchie, J., Lock, M.: The treatment of colorectal cancer by local excision, British Journal of Surgery, May 1978, pp346-9.
20. Hoth, JJ. et al: Results of local excision of benign and malignant rectal lesions, Am Surg.2000 Dec.
21. David A., Sheilla, P.: Risk factors for advanced colonic neoplasia & hyperplastic polyps in asymptomatic individuals, JAMA, 2003.
22. Savic, B., Schultz, D., Raschke, E.: Transanal removal of malignant polyps. Zentrabl Chir.1971 Sep 11, pp1286-9.