

Review of current Management of Rectal Prolapse

Essay

*Submitted For Partial Fulfillment of Master
Degree In General Surgery*

Presented By

Gamal El-Deen Abd-Elmonem Mohammad
M.B.,B.CH.

Under Supervision of

Prof. Dr.Tawfik Saad Faheem

Professor of General Surgery
Faculty of Medicine-Ain Shams University

Prof.Dr.Hossam El-Deen Hassan Azzazy

Professor of General Surgery
Faculty of Medicine-Ain Shams University

Dr.Mahmoud Saad Farahat

Lecturer of General Surgery
Faculty of Medicine- Ain Shams University

**Faculty of Medicine
Ain Shams University**

2010

Acknowledgement

*First and foremost, I always feel indebted to “**ALLAH**” the most beneficent and merciful.*

*Words cannot express the depth of my gratitude to my teacher **Prof. Dr. Tawfik Saad Faheem**, Professor of General Surgery, faculty of Medicine, Ain-Shams University, for his valuable suggestions, generous assistance, kind support and continuous encouragement throughout this work.*

*My great appreciation and thanks to **Prof. Dr. Hossam El-Deen Hassan Azzazy**, Professor of General Surgery, Faculty of Medicine, Ain-Shams University, for his unlimited help, kind support, valuable supervision, guidance and advice.*

*I would like to express my deepest gratitude and profound thanks to **Dr. Mahmoud Saad Farahat**, Lecturer of General Surgery, Faculty of Medicine, Ain-Shams University, for his precious time, active participation, great help and honest assistance to complete this work.*

Finally, I would like to express my appreciation to everyone who directly or indirectly gave a hand in accomplishment of this work.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ
الْحَكِيمُ

صدق الله العظيم

سورة البقرة آية (٣٢)

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Ain Shams University
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Introduction

Rectal prolapse is defined as a protrusion of the wall of the rectum into the lumen of anal canal (intussusception) or through the anal canal to the outside (procidentia recti). Prolapsed hemorrhoids and mucosal prolapse must be considered in the differential diagnostic work-up (**Rose et al; 2002**).

The search for a single common theory for the cause of rectal prolapse has not been fruitful. Although there are common factors that seem to apply in many cases, no single theory has explained the reason that a newborn infant, a paraplegic middle-aged man, and a 70 –year-old woman all manifest the same physical findings of rectal prolapse (**Karulf et al; 2001**).

Chronic psychiatric disease requiring long-term medication is observed in 50% of patients with total rectal prolapse under the age of 50 years. Moreover, the medically induced constipation in these patients could represent a cause of poorer functional outcome (**Marceau et al; 2004**).

Prolapse of the rectum is associated with an inordinate impairment of the patient's quality of life. This lead to a strong desire on the part of the patient for a treatment that will enable him or her to resume normal social activities, and explains the

considerable demands made on the surgeon treating this condition **(Rose et al; 2002)**.

Rectal prolapse is a lifestyle-altering disability which has been treated with over 100 surgical options **(Senagore; 2003)**.

Many techniques have been described for repair of complete rectal prolapse in adults. The results of abdominal approaches are superior to those of perineal approaches, but they carry the risks of major abdominal surgery **(Lasheen et al; 2005)**.

The specific goals of surgical management of full thickness rectal prolapse are to minimize the operative risk in typically elderly populations, eradicate the external prolapse of the rectum, improve bowel function, and reduce the risk of recurrence. The theoretical advantages of a laparoscopic approach are to couple reduction in surgical morbidity and good post-operative outcome. Studies which compare the same laparoscopic and open surgical approach for rectal prolapse have demonstrated that laparoscopy confers benefits related to postoperative pain, length of hospital stay, and return of bowel function. Virtually every type of open transabdominal surgical approach to rectal prolapse has been laparoscopically accomplished. Current laparoscopic surgical techniques include suture rectopexy, stapled rectopexy, posterior mesh rectopexy, with artificial material, and resection of sigmoid colon with colorectal anastomosis, with or without rectopexy.

The growing body of literature supports the concept that laparoscopic surgical techniques can safely provide the benefits of low recurrence rates and improved functional outcome for patients with full thickness rectal prolapse(**Marceau et al; 2004**).

Aim of the Work

The aim of the present study is to highlight the new theories in pathogenesis of rectal prolapse, update in management of rectal prolapse and the current place of laparoscopic surgery in its treatment.

Review of literature:-

- Surgical anatomy of the rectum and anal canal.
- Theories in Pathogenesis of rectal prolapse.
- Classification of rectal prolapse.
- Clinical features of rectal prolapse.
- Update in treatment of rectal prolapse .
- Outcome and prognosis.
- Summary and Conclusion.
- References.
- Arabic summary.

References:-

- (1) **Rose J, Schneider C, Scheidbach H, Yildirin C, Bruch HP, Kanradt T, Barlehner E and Kocherling F (2002):** Laparoscopic treatment of rectal prolapse. *Langenbecks Arch Surg*; 387:130-147.
- (2) **Karulf RE, Madoff RD and Goldberg SM (2001):** Rectal prolapse. *Current problems in Surgery*. Volume 38 number 10 October.
- (3) **Marceau C, parc Y, Debroux E, Tiret E and Parc R (2004):** Complete rectal prolapse in young patients: psychiatric disease a risk factor of poor outcome. *Blackwell Publishing Ltd. Colorectal Disease*; 7: 360-365.
- (4) **Senagore AJ (2003):** Management of rectal prolapse: The role of laparoscopic approaches. *Semin Laparosc Surg Dec*; 10(4): 197-202.
- (5) **Lasheen AE, Khalifa S, El Askry SM and Elzeftawy AA (2005):** Closed rectopexy with transanal resection for complete rectal prolapse in adults. *Journal of Gastrointestinal Surgery*; 9: 980-984.

الملخص العربي

إن سقوط المستقيم هو بروز جداره داخل التجويف أو داخل القناة الشرجية (انغلاق)، أو عبر القناة الشرجية إلى الخارج.

تعتبر البواسير وسقوط الطبقة المخاطية من التشخيص التفريقي لسقوط المستقيم. والبحث عن نظرية عامة لتفسير هذا المرض غير مجدى. ولكن يوجد هناك عوامل عامة تترابط مع بعضها. وقد لوحظ وجود أمراض نفسية فى ٥٠% من المرضى الذين يعانون من السقوط الشرجى فوق سن الـ ٥٠ عاماً. وهو يغير من طبيعة حياة الفرد مما يخلق رغبة ملحة من جانب المريض فى العلاج، وهذا يفسر الحاجة الماسة للأطباء المعالجين لهذا المرض. ويعتبر سقوط المستقيم عجزاً مغيراً لنمط الحياة وعولج بأكثر من مائة طريقة جراحية، وهناك العديد من التقنيات الجراحية المستخدمة فى علاج هذا المرض فى البالغين. ونتائج التدخل من خلال البطن أفضل من التدخل العجائى ولكنه يحمل مخاطر جراحات البطن الكبرى.

إن الأهداف الخاصة للتدخل الجراحى للهبوط الكامل للمستقيم هي تقليل خطر الجراحة عند المسنين، واستئصال الهبوط الخارجى للمستقيم وتحسين وظائف الأمعاء، وتقليل الارتجاع. إن الجمع بين النتائج الجيدة بعد الجراحة وإنقاص المعاناة الجراحية هي من ميزات علاج سقوط المستقيم بطريقة منظار البطن، ولقد بينت الدراسات المقارنة بين الطريقتين فائدة المنظار فى تجنب الآلام الشديدة بعد الجراحة والإقامة الطويلة فى المستشفى مع سرعة عودة وظائف الأمعاء. لقد حل منظار البطن فى الواقع

محل كل الطرق الجراحية عبر البطن في علاج سقوط المستقيم. وتدعم الدراسات الحديثة الرأي القائل بأن المعالجة بالمنظار ذات نتائج أفضل وظيفيا وأقل في درجة الارتجاع بالنسبة للسقوط الكامل للمستقيم.

نظرة عامة في العلاج الحديث للسقوط الشرجي

رسالة

توطئة للحصول على الماجستير في
الجراحة العامة

مقدمة من

الطبيب/ جمال الدين عبدالمنعم محمد
بكالوريوس الطب والجراحة

تحت إشراف

الأستاذ الدكتور/توفيق سعد فهميم

أستاذ الجراحة العامة
كلية الطب-عين شمس

الأستاذ الدكتور /حسام الدين حسن عزازي

أستاذ الجراحة العامة
كلية الطب-عين شمس

الدكتور/محمود سعد فرحات

مدرس الجراحة العامة
كلية الطب-عين شمس

كلية الطب

جامعة عين شمس

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