PROSPER Trial: A Randomised Trial of Rectal Prolapse Surgery

Background

Rectal prolapse is a profoundly disabling condition, occurring mainly in elderly and parous women. The pathogenesis is ill understood, it is often under-reported and there are no reliable estimates of the prevalence of the condition.

Of the 50% (154) of senior surgical members of the Association of Coloproctology of Great Britain and Ireland (ACPGBI) who responded to a questionnaire on the subject in 2000, the median number of prolapse operations performed annually was six (ranging from 0 to 25) suggesting that at least 1000 operations are undertaken each year in the UK alone.
Curative treatment of rectal prolapse is exclusively surgical but, with over 100 different operations described, there is no accepted standard procedure.

Surgical procedures can be assigned to two main categories - abdominal or perineal. Most abdominal procedures involving fixation of the rectum to the sacrum (rectopexy), usually using a sheet of foreign material to support the rectum or to induce fibrotic adhesion; 'suture rectopexy' is performed without any such material. Rectopexy may also be performed with or without resection of a variable length of colon.

The most widely used perineal operation in the UK entails stripping of the mucosa and plication of the muscle layers of the prolapse (Delorme's operation), while in the United States perineal proctosigmoidectomy (Altemeier's operation), in which the full thickness of the prolapse is resected, is more widely performed. ACPGBI members who responded to our questionnaire varied widely in their general approach: 41% preferred the abdominal, 23% the perineal, while 38% had no routinely favoured approach, including whether or not resection was included in the procedure.

Open all sections

What was the PROSPER trial...

Rectal prolapse is a profoundly disabling condition, occurring mainly in elderly and parous women. There is no accepted standard surgical treatment with previous studies limited in methodological quality and size. PROSPER was a pragmatic, randomised controlled trial which aimed to address these deficiencies by comparing the relative merits of different procedures.

Patients with full thickness rectal prolapsed were randomised between (a) abdominal and perineal surgery and (b) suture versus resection rectopexy for those receiving abdominal procedures or (c) Altemeier's versus Delorme's for those receiving perineal procedures. The primary outcome measures for the study were changes defaecatory performance (Kamm score) and Quality of Life; the secondary outcome measures were operative morbidity/mortality and recurrence of prolapsed.

What did the study find...

Between February 2001 and April 2008 when the study closed, 293 patients with full thickness rectal prolapsed consented to be randomised. Recruitment came from 30 UK centres (250 patients) and 4 centres from outside the UK: India, Serbia, Spain and Finland.
The results of the PROSPER trial have now been analysed and written up, it is hoped that the results of the trial will be published in early 2013.

What impact will this study have...

The PROSPER trial is by far the largest trial of surgical treatment for rectal prolapse. Furthermore, it is the only trial that has looked at quality of life after these operations and demonstrates the beneficial impact of surgery for rectal prolapse on patients' symptom-specific and overall quality of life.

The PROSPER trial did demonstrate that patients having an abdominal rectopexy have a higher recurrence rate than most people believe and that there are no obvious differences with any of the operations as regards Quality of Life and incontinence.

Publications...

The Cochrane Database (http://www.cochrane.org/cochrane-reviews)

Tou S, Brown SR, Malik AI, et al. Surgery for complete rectal prolapse in adults. Cochrane Database of Systematic Reviews 2008, Issue 4. doi: 10.1002/14651858.CD001758.pub2

More information...

Association of Coloproctology of Great Britain and Ireland (http://www.acpgbi.org.uk/)

The PROSPER trial was funded by **The BUPA Foundation (http://www.bupafoundation.com)**

© University of Birmingham 2015