Chapter Connection

4th Issue - October 2008

Chapter Connection **is a newsletter specially brought to you by the Chapter of General Surgeons under the purview of the College of Surgeons, Singapore. The Board of the Chapter of General Surgeons is well represented with members from different institutions and this would mean that you could find the latest happenings of the general surgery community of these institutions in this newsletter. This newsletter is published quarterly and will be distributed to the Members of the Chapter of General Surgeons. On the goodwill of the Chapter Board, this quarterly newsletter will also be distributed at no cost to the Trainees and Fellows of General Surgery in various public hospitals.**

Message from Chapter Chairman

Dear Colleagues,

Your Chapter Board has entered its second year of office, and we have been working hard to review and revise our work plans.

For a start, we have decided to continue reaching out to more surgeons via our newsletter. To make it interesting and hopefully to inspire the younger ones, we will be running a series of articles written by senior surgeons, detailing their experiences over the years and what we can learn from them.

We will also be organizing the exit examination preparatory course 2009 for the Advanced Surgical Trainees, like we did last year, with more attention to the clinical cases and VIVA and less didactic stuff.

Finally, I would like to thank all of you for supporting the College of Surgeons Dinner 2008 held on 19 September 2008 at The Regent Singapore which was well attended. Dr Mark Wong was awarded the College of Surgeons Gold Medal in recognition of his achievement in the exit examination this year for General Surgery, which was collected on his behalf by his father, Dr Wong Sen Chow, who is himself a well-known surgeon. Congratulations to Dr Mark Wong!

Please feel free to drop us a line by emailing us at css@ams.edu.sg if have any suggestions to improve our content. Any contribution of articles of scientific or non-scientific context is also welcome.

Thank you.

Warm regards,
Dr Swaminathan I.
Chairman, Chapter of General Surgeons
College of Surgeons, Singapore

"My son is failing out of medical school, so to help him get extra credit, I'm allowing him to operate on you."

Excision Haemorrhoidectomy – New Methods to Improve Outcomes of an Old Technique

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Background

Despite the current interest in stapled haemorrhoidopexy, conventional Milligan-Morgan open haemorrhoidectomy remains a frequently performed operation in our population. The lower cost of the procedure associated with a good long term cosmetic effect in patients with large skin tags make open haemorrhoidectomy a viable option still. An Italian study published very recently actually found the Milligan-Morgan procedure to have better results compared to stapled haemorrhoidopexy.[1] These results were echoed in a systematic review a few months prior.[2]

It is not uncommon for surgical excision of haemorrhoids to be associated with postoperative pain together with perianal discharge, itchiness and irritation during the healing phase. The amount of post-operative symptoms are highly variable, and depend on the severity of the haemorrhoidal disease, individual pain threshold, racial and cultural differences, quality and type of anesthesia, postoperative care, and the surgical technique. Some of these factors are more important than others in influencing post-operative pain and healing.

Some recent local studies have provided us some insight into improving wound healing rates and post-operative pain after excision haemorrhoidectomy.

Improving Outcome after Excision Haemorrhoidectomy

There is no doubt that postoperative spasm of the internal sphincter contributes to pain and poor wound healing.[3-5] As such there had been many modifications of surgical technique to decrease this spasm in attempts to reduce pain. Anal dilatation was used to reduce post-haemorrhoidectomy pain. However, this was associated with an increased risk of severe irreversible sphincter damage and anal incontinence. Internal anal sphincterotomy and suppositories have also been used but with little success.[6,7]

Topical glyceryl trinitrate (GTN) reduces anal canal pressures and improves anodermal blood flow.[8,9] Post-haemorrhoidectomy topical use of GTN may reduce anal spasm and improve postoperative pain while improved anodermal blood flow may accelerate wound healing.

A randomized, prospective, double-blind placebo-controlled trial on 82 patients undergoing diathermy haemorrhoidectomy was conducted.[10] Patients were randomized to either 0.2% GTN ointment (Rectogesic™—Cellegy Australia Pty Ltd, 203 New South Head Road, Edgecliff NSW 2027, Australia) or placebo (vaseline) ointment applied topically to the perianal region after open diathermy haemorrhoidectomy.

There were 40 patients in the GTN ointment arm and 42 patients in the placebo arm. There were no statistically significant differences in the sex, weight, type of haemorrhoid, type of surgery (emergency or elective), number of haemorrhoids excised, duration of surgery, hospital stay and complication rate. By week 3 however, 17 of patients in the GTN arm had completely epithelized wounds compared to 8 of patients in the placebo arm. (p=0.021). Only 1 patient in the GTN arm experienced headaches requiring discontinuation of the ointment.

We concluded that glyceryl trinitrate (0.2%) ointment is useful in improving the wound healing rates.

In another local study looking at the addition of methylene blue to local analgesics to prolong post-operative local anesthetic effect, we found that methylene blue was effective in prolonging anesthesia for up to about 3 weeks.[11] We are currently investigating the use of methylene blue in addition to local anesthesia for patients undergoing excision haemorrhoidectomies.

More recently, a randomized trial comparing diathermy haemorrhoidectomy to Ligasure haemorrhoidectomy was performed.[12] We randomized 44 patients, 22 to Ligasure and 22 to diathermy. 43 patients were analyzed. They were aged between 19 and 71 years. There were no differences in patient demographics and type of haemorrhoid being operated on. Ligasure haemorrhoidectomy had a significantly lower mean operative time and intraoperative bleeding. Sixty percent of patients who underwent Ligasure haemorrhoidectomy had wounds that were completely epithelized compared to 19% in the diathermy group at 3 weeks after surgery. At 3 weeks post surgery, haemorrhoidectomy performed with Ligasure had an odds ratio for complete epithelization of 3.1 over diathermy (95% CI 1.2 – 8.2).

Dissection with Ligasure is associated with a reduced collateral damage to adjacent tissue compared to diathermy. The reduced anal spasm and smaller open wounds associated with Ligasure haemorrhoidectomy may have contributed to earlier wound healing.

Conclusion

Recent local studies have provided some new methods for improving the post-operative outcomes of the technique of excision haemorrhoidectomy. Wound healing rates may be improved by topical glyceryl trinitrate which improves anodermal blood flow and also with the usage of Ligasure. The addition of methylene blue for topical analgesics may allow a prolongation of analgesic which may allow for a more painless recovery. More studies are currently being conducted for further improvement of results in an operation that is frequently indicated in our population.

References

1. *Mattana C, Coco C, Manno A, et al. (2007) Stapled hemorrhoidopexy and Milligan Morgan hemorrhoidectomy in the cure of fourth-degree hemorrhoids: long-term evaluation and clinical results. Dis Colon Rectum 50: 1770 – 5*
2. *Jayaraman S, Colquhoun PH, Malthaner RA. (2007) Stapled hemorrhoidopexy is associated with a higher long-term recurrence of internal hemorrhoids compared with conventional excisional hemorrhoid surgery. Dis Colon Rectum 50: 1297 – 305*
3. *Cheetham MJ, Philips RK. Evidence-based practice in haemorrhoidectomy. Colorectal Dis 2001; 3: 126 – 34*
4. *Asfar SK, Juma TH, Ala-Edeen T. Hemorrhoidectomy and sphincterotomy. A prospective study comparing the effectiveness of anal stretch and sphincterotomy in reducing pain after hemorrhoidectomy. Dis Colon Rectum 1988; 31:181 – 5*
5. *Gorfine SR. Treatment of benign anal disease with topical nitroglycerine. Dis Colon Rectum 1995; 38: 453 – 7*
6. *Ho YH, Seow-Choen F, Low JY, et al. Randomized controlled trial of trimebutine (anal sphincter relaxant) for pain after haemorrhoidectomy. Br J Surg 1997; 84: 377 – 379*
7. *Mathai V, Ong BC, Ho YH. Randomized controlled trial of lateral sphincterotomy with haemorrhoidectomy. Br J Surg 1996; 83: 380 – 382*
8. *Shouten WR, Briel JW, Auwerda JJ, Boerma MO. Anal fissure: new concepts in pathogenesis and treatment. Scand J Gastroenterol Suppl 1996; 218: 78 – 81*
9. *Kua KB, Kocher HM, Kelkar A, Patel AG. Effect of topical glyceryl trinitrate on anodermal blood flow in patients with chronic anal fissures. ANZ J Surg 2001; 71: 548 – 50*
10. *Tan KY, Sng KK, Tay KH, Lai JH, Eu KW. Randomized clinical trial of 0.2 per cent glyceryl trinitrate ointment for wound healing and pain reduction after diathermy haemorrhoidectomy. Br J Surg 2006; 93: 1464 – 8*
11. *Tan KY, Seow-Choen F. Methylene Blue injection reduces pain after lateral anal sphincterotomy. Tech Coloproctology 2007; 11: 68 – 9*
12. *Tan KY, Zin T, Sim HL, Poon PL, Cheng A, Mak K. Randomized clinical trial comparing LigaSure haemorrhoidectomy with open diathermy haemorrhoidectomy. Tech Coloproctol. 2008 Jun;12(2):93 – 7*

☺ ***A Note of Thanks to Dr Anton Cheng for contributing this article.***
This article can also be read at the Chapter's eForum at www.css.edu.sg/Forum.

Contribution of any interesting news & articles from Chapter Members are welcome for consideration to publish in this quarterly newsletter. Please send it to the College Secretariat at css@ams.edu.sg.

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