

Is stapled haemorrhoidopexy safer and more effective compared to conventional haemorrhoidectomy? A systematic review

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Background

- Haemorrhoids occur in people of any age and gender.
- A range of methods for conventional excisional haemorrhoidectomy (CH) are available; Milligan-Morgan is most frequently used in the UK; approximately 8,000 CHs were performed in England in 2004/5.¹
- Stapled haemorrhoidopexy (SH), introduced in 1998,² provides a simultaneous circumferential haemorrhoidal excision and mucosal anastomosis, removing excess haemorrhoidal tissue and returning the residual haemorrhoidal mass to its original position;³ it is thought that approximately 1500 SHs were conducted in the UK between 1998 and 2002.⁴
- The creation of the stapled anastomosis above the dentate line avoids the painful anodermal wounds associated with excisional techniques.⁵
- Alleged reduction in post-operative pain, hospital stay and time to normal function is offset against an increased operative cost and a perceived increase in prolapse and post-operative complications.^{5, 6}

Objectives

To investigate the safety and effectiveness of circular SH for the treatment of haemorrhoids.

Methods

Twenty one electronic databases were searched up to July 2006. Bibliographies of included studies and relevant reviews, websites of five relevant organisations, and the contents of five key journals that were not core journals on MEDLINE (July 2005 to July 2006) were also searched.

Randomised controlled trials (RCTs) with 20 or more participants of any age with prolapsing haemorrhoids, that compared a circular SH specifically designed to perform SH with any CH technique where excision is conducted using scalpel, scissors or diathermy, were eligible for inclusion. Trials of patients undergoing emergency procedures for thrombosed haemorrhoids were excluded.

Outcomes were classified as post-operative (within 6 weeks), short-term (>6 weeks to <12 months), or long-term (12 months and beyond); results for post-operative and long-term outcomes are presented.

Results

Twenty seven RCTs were included (n=1137 SH; 1142 CH). All had some methodological flaws.

Post-operative period (up to 6 weeks)

- 95% of trials reported less pain following SH; most trials did not provide a measure of variance, and those that did were too heterogeneous to obtain a pooled estimate (Fig. 1). By day 21, pain was minimal, with little difference between SH and CH (Fig. 2).

Figure 1: VAS pain score during the first 7 days post-operatively

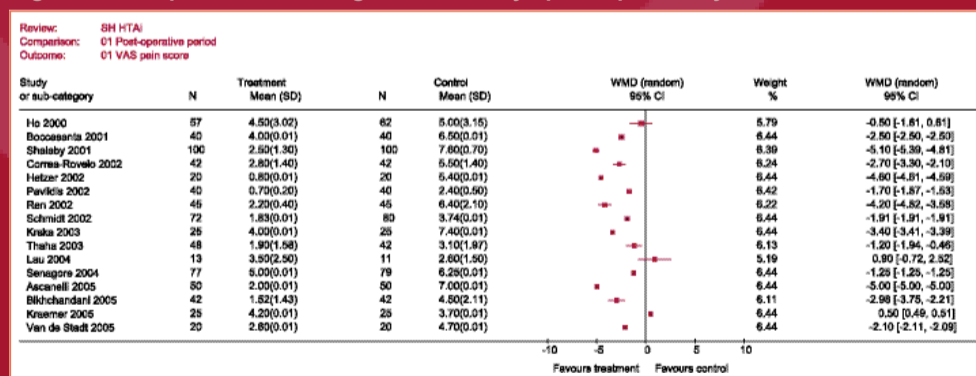
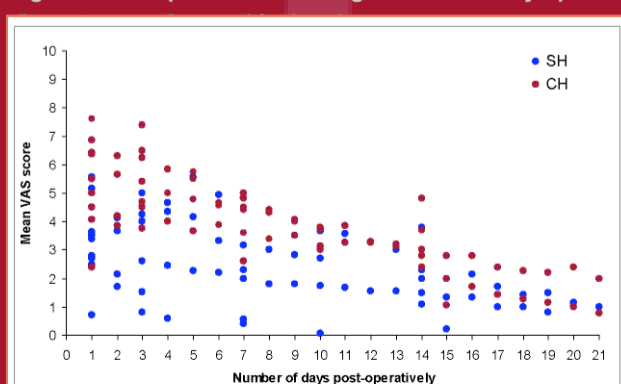


Figure 2: VAS pain score during the first 21 days post-operatively

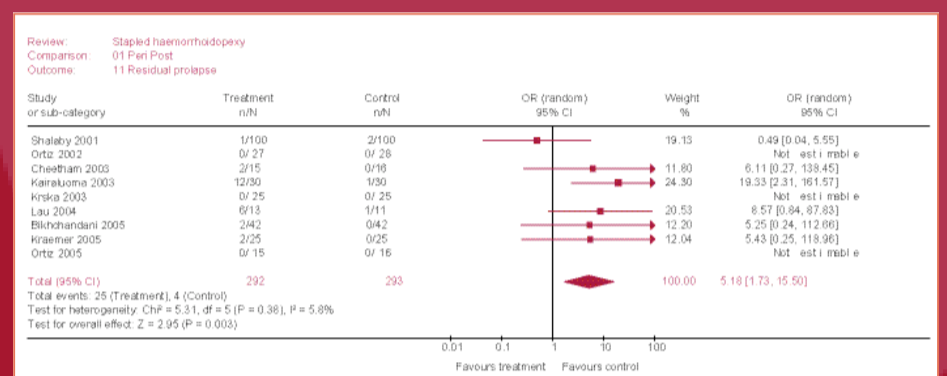


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- Residual prolapse was more common after SH (OR 3.38; 95% CI: 1.00, 11.47; p=0.05; 9 RCTs; Figure 3).
- SH had shorter operating times (89% of RCTs), hospital stay (84% of RCTs), and time to normal activity (95% of RCTs), and significantly fewer patients had unhealed wounds 6 weeks after SH (OR 0.08; 95% CI: 0.03, 0.19; p<0.001).
- There was no difference in the incidence of complications.

Figure 3: Residual prolapse within the first 6 weeks post-operatively



Longer-term (1 year and beyond)

- There was a significantly higher rate of prolapse (OR 4.34; 95% CI: 1.67, 11.28; p=0.003; 12 RCTs; Figure 4), and number of reinterventions required for prolapse (OR 6.78; 95% CI: 2.00, 23.00; p=0.002; 6 RCTs; Figure 5), after SH.
- There was no difference in the number of patients experiencing pain, bleeding, or complications.

Figure 4: Prolapse at 12 months and beyond

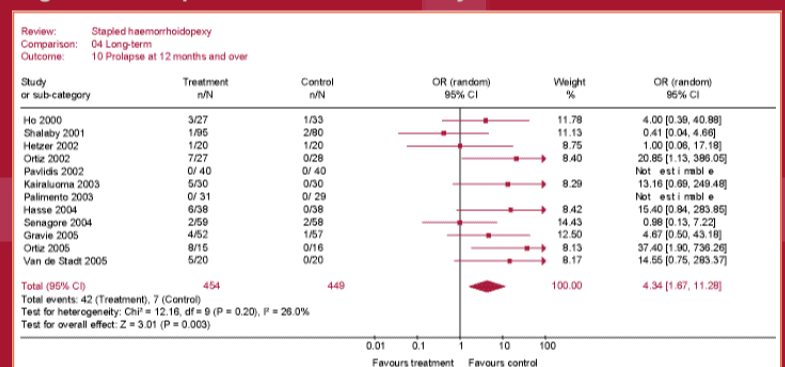
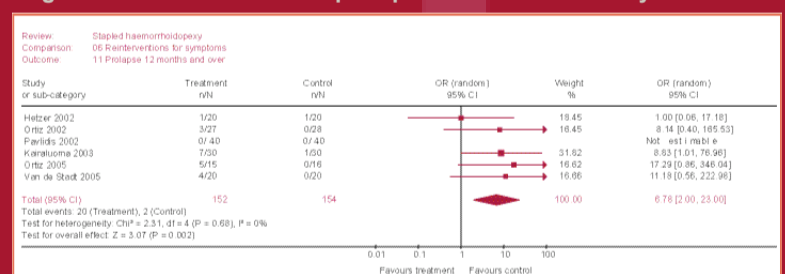


Figure 5: Reintervention for prolapse 12 months and beyond



Conclusions

- SH was associated with less pain in the immediate post-operative period, but a higher rate of prolapse, and reintervention for prolapse, in the longer term.
- There was no clear difference in the rate or type of complications associated with the two techniques.

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