

## **Systematic Review & Meta-Analysis of Randomized Control Trials Comparing Stapled Hemorrhoidectomy versus Trans Anal Hemorrhoidal Dearterialization for Treatment of Hemorrhoidal Disease**

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### **ABSTRACT**

**Background & Aims:** Haemorrhoidal disease is the most common anorectal pathology affecting 50% Irish and 36.4% UK population at some stage in their life. After conservative management with dietary modification and office procedures like rubber band ligation has failed formal haemorrhoidectomy needs to be done. Conventional haemorrhoidectomy has been replaced by new techniques like stapled haemorrhoidectomy (SH) and transanal haemorrhoidal dearterialization (THD) due to its serious complications. We performed this systematic review and meta-analysis of randomised control trials (RCTs) comparing these two modalities.

**Methods:** The search strategy was designed with help of an experienced librarian for Ovid Medline, EMBASE, Cochrane Library and PubMed until 30th August 2021. The primary outcome of interest was recurrence and secondary outcomes were operative time, pain score and complications.

**Results:** 10 RCTs pooled a total of 1116 patients with 562 in THD group and 554 in SH group. Based on fixed-effect model the risk ratio (RR) of recurrence among the two groups was 2.44(95% CI 1.70 – 3.51). So, there was a statistical difference among the THD and SH groups in terms of recurrence with more in the THD group, while statistically significant fewer complications 0.57(95% CI 0.39 - 0.84) and reduction in pain scores -0.99(95% CI -1.51 to -0.48) in THD group as compared to SH group was found. Operative times for both groups were similar 4.53(95% CI -0.04 – 9.09) so not statistically significant.

**Conclusions:** Based on a meta-analysis of 10 RCTs it is found that THD has more recurrence than SH with a better safety profile as reduced complications and pain scores were seen.

**Key words:** haemorrhoidal disease, meta-analysis, stapled Haemorrhoidectomy, systematic review