

COMPARISON OF HELICA THERMOCOAGULATOR WITH CONVENTIONAL DISSECTION TONSILLECTOMY: A PROSPECTIVE CLINICAL TRIAL

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The aim of this randomized prospective study was to compare the clinical outcome of Helica Thermo Coagulator with conventional dissection tonsillectomy in paediatric age group. Helica Thermo Coagulator is a new device and this is the first report concerning its use in tonsillectomy. It uses Helium gas and AC current at very low power between 2 and 8 watts for coagulation. 44 patients (mean age 8.6 years, range 2 to 16 years) undergoing helica thermocoagulation tonsillectomy were compared prospectively with 31 conventional dissection tonsillectomy patients (mean age 7.8 years, range 2 to 15 years). Conventional dissection tonsillectomy was by standard cold steel technique. Operating time, intra-operative bleeding, postoperative pain at 1 to 10 days, postoperative bleeding and hospital readmission were compared.

There was significant difference in operating time between thermocoagulation and conventional tonsillectomy. The average operating time for conventional tonsillectomy was 26.9 minutes and for thermocoagulation it was 10.9 minutes. Helica group had significantly less intraoperative bleeding compared to standard dissection. The average blood loss for conventional dissection was 47.2 ml and for thermocoagulation 9.9 ml. At days 1 to 10 the conventional tonsillectomy patients reported significantly higher pain scores than helica group ($p < 0.0001$, Mann-Whitney U test). Readmission rate was none for helica group and six needed readmission in conventional group, two with post-operation bleeding needing general anaesthesia for controlling and four for pain management. Hence we highly recommend this device for tonsillectomy especially in paediatric age.