A Comparative Study of Cold Steel and Diathermy Tonsillectomy Methods

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Abstract

Tonsillectomy is one of the most widely performed surgeries in ENT. In countries like India where cost is a major issue, cold steel and diathermy methods for tonsillectomy are preferred. Twenty patients with indications of bilateral tonsillectomy were selected and randomly assigned to any of the two groups. Standard preoperative and postoperative care was followed. The statistical analysis showed diathermy procedure takes less time and less perioperative bleeding but more postoperative pain. No incidence of primary, reactionary or secondary hemorrhage in any of the cases. Diathermy method of tonsillectomy may be considered as a method of choice based on our study findings.

Keywords Tonsillectomy; Cold steel; Diathermy

Introduction

Tonsillectomy is one of the most commonly performed surgeries in the eld of Otorhinolaryngology. Di erent techniques of tonsillectomy include cold steel method, guillotine excision, monopolar and bipolar diathermy dissection, cryosurgery, coblation technique, microscopic bipolar diathermy, ultrasonic removal, harmonic scalpel, and laser dissection [1-3].

Cold steel, electrodissection(diathermy assisted), coblation, laser-assisted, radiofrequency ablation, microdebrider are some of the methods of tonsillectomy. Cold steel method is the earliest method and still one of the most commonly performed methods to date in the developing world. Diathermy assisted(monopolar, bipolar) tonsillectomy has gained popularity in recent years. ough, in many nations, other methods like laser-assisted tonsillectomy and coblation have gained signi cant popularity but in a developing country like In 12(p) -9(o) 7.nt 1 2n2(i)12 3(8(s)2(192.3642) 4(o) -9(d)8) -298(g w) 13(o) -9(di) 5qrfi(e)hon, m 6(e)(e o) 12(f t)-2dised methoerl6(ar) 4(li) 1(s -5(k)0 T

with regards to the preoperative parameters of age (3.5 *vs.* 3.0 respectively, p=ns) and tonsillar size (12.2 *vs.* 13.5 respectively, p=ns).

e mean duration of surgery for cold steel method was 63(5.1) mins which was signi cantly higher than the diathermy method 17.5(1.7) mins (p value<.0001) (Figure 1a and 1b).

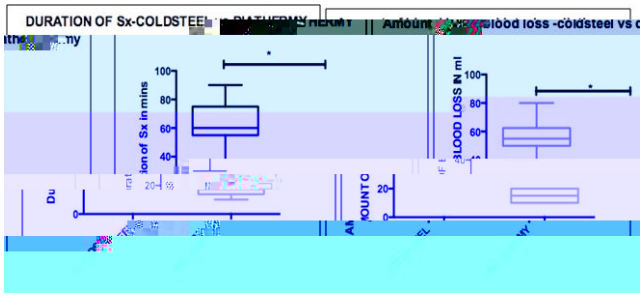

Figure 1: Box and Whiskers plots showing comparison of the duration of surgery (1a) and amount of blood loss (1b) in cold steel and diathermy groups.

e amount of blood loss during cold steel method was 57(3.67)ml which is signi cantly higher (p-value<.0001) than diathermy method 14.5(1.39)ml.

e mean VAS score used for pain assessment at 12 hours a er surgery for cold steel method was 5.8(0.5) which is signi cantly lower (p-value 0.0102) than the diathermy method 7.4(0.3). e assessment of maximal mouth opening at 12 hours a er surgery compared to preoperative mouth opening for cold steel method 69.5(2.17)% is signi cantly