EVALUATION OF THE USE OF ULTRASONICALLY ACTIVATED SCALPEL FOR SAFE AND EFFICIENT THYROIDECTOMY

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ABSTRACT

Objective: This prospective study was designed to evaluate the feasibility and outcome of thyroidectomy using Ultrasonically Activated Scalpel (UAS) in comparison to the conventional thyroidectomy.

Patients and Methods: This study comprised 40 patients with mean age 41.4±9 years, divided into two groups: Group A comprised 25 patients underwent thyroidectomy using UAS and 15 patients underwent conventional thyroidectomy (Group B). Both groups were compared as regards operating time, operative blood loss (=weight of wet sponges-weight of dry sponges), postoperative seroma formation and surgeons' satisfaction regarding the ease of dissection, need of blood vessel ligation and dryness of the surgical field.

Results: Mean operative time was significantly shorter in group A (77±5.8 minutes) compared to group B, (105.7±6.5 minutes) especially in cases with primary thyrotoxicosis and cancer thyroid. Intraoperative blood loss showed a significant (P<0.05) reduction in group A, (85±5.4 gm) compared to group B (125.3±7.8 gm). There was a positive significant correlation between the reduction of intraoperative blood loss and operating time in both groups despite being more significant in group B. Mean total surgeons' satisfaction scores showed a significant difference in favor of satisfaction by using UAS.

Conclusion: It could be concluded that the use of Ultrasonically Activated Scalpel for thyroidectomy is feasible and could minimize intraoperative bleeding with shorter duration of surgery and had achieved significant surgeons' satisfaction.

Keywords: Ultrasonically Activated Scalpel, thyroidectomy.