THE USE OF LIGASURE VESSEL SEALING SYSTEM IN HEAD AND NECK SURGERY

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ABSTRACT

OBJECTIVE: To demonstrate the experience of a tertiary referral center in the use of Ligasure vessel-sealing device (LVSS; Valleylab, Boulder, Colorado) in Otolaryngology Head and Neck Surgery. LVSS is a bipolar electrosurgical device, with integrated active feedback control. It facilitates surgery by achieving efficient haemostasis of blood vessels as well as accurate tissue dissection. Therefore, it allows the rapid and secure division of vascularized tissues, while thermal injury to adjacent tissues is minimal.

METHODS: The files of all patients who underwent surgery with the use of LVSS between November 2002 and December 2009 were retrospectively reviewed. Efficacy of haemostasis, operation time, and postoperative complications were assessed. Results were compared with previous surgical procedures performed in the same department using conventional vessel ligation systems, such as suture ligation and electrocautery.

RESULTS: Overall, 402 cases were included in the study. LVSS was mainly used in thyroidectomy, superficial parotidectomy and neck dissection, with a total number of 264 cases. Operative duration was significantly reduced with the use of LVSS. The device was also effective in providing haemostasis, resulting in less amount of intraoperative blood loss. Postoperative complication rates were comparable with conventional dissection and ligation techniques.

CONCLUSIONS: Use of LVSS provided sufficient haemostasis and resulted in significant reduction of operative duration. LVSS proved to be a safe alternative for vessel ligation and tissue dissection in head and neck surgery.

REFERENCES