



CHAPTER I

INTRODUCTION

Rationale and Background

Tonsillectomy is one of the most common procedures performed by otolaryngologists. Intraoperative bleeding is a significant problem which requires hemostasis and causes prolonged operative time. Several different techniques are used to perform this operation, including cold knife dissection, monopolar cautery, coblation, radiofrequency, microdebrider and vessel sealing system [1-10]. Efficacies in hemostasis and different degree of tissue trauma from different operative techniques may result in different operative time and different degrees of morbidity including intraoperative blood loss, postoperative pain and hemorrhage.

The vessel sealing system has been widely used in head and neck surgery because of its effectiveness and safety [11-16]. It was also found quite effective and safe, providing excellent hemostasis and minimal tissue trauma [6-9, 17-19]. This study was planned to compare vessel sealing system tonsillectomy (VSST) to the traditional cold knife tonsillectomy (CKT) with special regard to intraoperative bleeding, operative time, postoperative pain and hemorrhage.

Background Instrument Information

The vessel sealing system (VSS) is a bipolar vascular sealing system, with integrated active feedback control. The tissue is grasped and compressed by the special forceps. The microprocessor-controlled generator automatically adjusts the delivered amount of energy to denature the vessel wall and surrounding connective tissue and reforms with the vessel walls in apposition. It automatically terminates the pulse, when sealing is completed. After the instrument is removed, the seal can safely be divided. The VSS has been approved by the US Food and Drug Administration for the sealing of vessels up to 7 mm in diameter.