ABSTRACT

Objective: To determine the mean distance of the main trunk of the facial nerve from two commonly employed surgical landmarks (tragal pointer and tympanomastoid suture line) among a sample of Filipino adults undergoing parotidectomy.

Methods: Design: Prospective Descriptive Study
Setting: Tertiary Government Training Hospital
Subjects: 22 patients without facial paralysis undergoing surgery for parotid neoplasms were evaluated intraoperatively.

Results: The main trunk of the facial nerve was found to be 9.0mm (standard deviation of 2.8mm) from the tragal pointer and 6.1mm (standard deviation of 2.0mm) from the tympanomastoid suture line.

Conclusion: The mean distance from the main trunk of the facial nerve to two of the most commonly utilized landmarks in identification of the nerve during parotidectomy was 9.0mm (standard deviation of 2.8mm) from the tragal pointer and 6.1mm (standard deviation of 2.0mm) from the tympanomastoid suture line. These may serve as reference values for surgeons in safer identification and preservation of the facial nerve during parotidectomy.

Keywords: facial nerve, parotidectomy, tragal pointer, tympanomastoid suture line, anatomic landmarks

The facial nerve and the parotid gland share an intimate anatomic relationship. The gland is divided into superficial and deep lobes by a sagittal plane defined by the branches of the nerve. However, the gland is actually unilobar and the plane created by the fanning branches of the facial nerve is not a true anatomic separation into two distinct and discrete lobes.¹

During parotidectomy, several anatomical landmarks may be used to locate the facial nerve. One of the most commonly employed is the tragal pointer. The facial nerve is approximately 1 to 1.5 cm deep and inferior to it.² Another landmark used is the tympanomastoid suture line. It is about 6 to 8mm deep or medial to the nerve.³ This is considered to be the most reliable landmark.⁴ Other landmarks may be used such as tip of the mastoid process and the central point of the transverse process of the atlas which are bony projections.⁵

To the best of our knowledge, there are limited if any local studies on the use of these landmarks during parotid surgery on Filipinos. This study aims to determine the mean distances