**ABSTRACT**

Peritonsillar abscess (PTA) is the most common deep infection of the head and neck in young adults. In the United States, the incidence is about 30 cases per 100,000 persons per year, accounting for approximately 45,000 cases annually [1]. While there are theories about the pathophysiology of PTA formation, one has been proven. Many people believe PTA are on a spectrum of tonsillitis, tonsillar fossa inflammation, tonsillar fossa cellullitis and subsequent abscess [1]. However, a direct correlation between the frequency of tonsillar infections and the development of PTA does not exist [2,3].

**METHODS AND MATERIALS (CONTINUED)**

University of Southern California School of Dentistry, was undertaken [2]. In short, all patients were NPO for >8 hours prior to testing. They then underwent collection of unstimulated whole saliva then collection of stimulated whole saliva with sugar-free gum stimulation. Next, the patients were hydrated with 1 Liter of water. After 10-15 minutes, they underwent collection of hydrated, unstimulated whole saliva, then collection of hydrated, stimulated whole saliva with sugar-free gum stimulation. This concluded the test. All measurements were recorded for analysis.

**RESULTS (CONTINUED)**

The p-value comparing the 3 groups in the DU state was 0.9900, indicating that there was no association between the groups. The DS, HU, and HS states also showed no association (p > 0.05). There was no significance found between sex and group or age and group.

**DISCUSSION**

The study is currently ongoing and the data presented here are only preliminary results. A pre-study power analysis indicated 50 patients are needed for each group. While there is no significant difference between the three groups, we hope to see what future data will glean.

Our results, if taken at face value, indicate that there is no difference in salivary flow rates between patients with a history of PTA, CT w/o PTA, and controls. Therefore, salivary flow may in fact have no role in the development of PTA. Preventing the formation of PTAs could significantly reduce emergency department visits and a large cost on the health care system while decreasing morbidity and mortality in a large patient population.

**CONCLUSIONS**

Our study results, though preliminary, indicate that there is no difference in salivary flow rates between patients with a history of PTA development, a history of CT without PTA development, and with no history of CT or PTA. Therefore, it appears, from our preliminary results, that salivary flow has no effect on the development of PTA.

**REFERENCES**