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Presentation Date:	Thursday, 10 May 2018 10:00 AM - 11:00 AM & 3:00 PM - 4:00 PM
Venue	SMX CONVENTION CENTER, MANILA, Meeting Rooms 7, 8 & 9
Presentation Title:	TRIGEMINAL NERVE STIMULATION AND DECREASE IN ARTERIAL PRESSURE BY DENTAL TREATMENT: A NEW ETIOLOGY OF SYNCOPE?
	<p>INTRODUCTION: This study aimed to investigate the effects of peripheral trigeminal nerve stimulation on mean arterial blood pressure during endodontic treatment</p> <p>METHODS: We conducted endodontic treatment in the dog model and monitored mean arterial blood pressure and heart rate during treatment. In human study, two sessions of endodontic therapy involving local anesthesia were conducted on 151 patients with pulpitis. The first session involved the stimulation of peripheral trigeminal and the second was without any stimulation. In both sessions, initial values of systolic blood pressure (SBP/mmHg), diastolic blood pressure (DBP/mmHg) and heart rate (HR/beats per min) were measured once before the treatment and several times during the treatment.</p> <p>RESULTS: In the animal model, 35 seconds after treatment, the mean arterial blood pressure drop by 28% and decrease in heart rate of 22.4% was noted. In human study, the percentage decreases in MABP during the first and second treatment sessions were significantly different ($P < 0.001$). Trigemino-cardiac reflex (TCR) was observed in 19.87 and 0% of patients during the first and second sessions respectively. Those with hypertension under treatment with beta blockers and calcium channel blockers are more susceptible to TCR.</p> <p>CONCLUSIONS and ACKNOWLEDGEMENTS: We conclude that stimulation of the trigeminal nerves during endodontic therapy significantly decreases MABP leading to TCR, which may subsequently induce syncope. These findings assist in understanding risk of syncope and hemodynamic changes during dental treatment.</p> <p>Keywords: trigeminocardiac reflex, endodontic syncope</p>