Cultural adaptation of Sniffin' Sticks olfactory identification test: preliminary results of the Malaysian version

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ABSTRACT

Introduction: Olfaction is an essential part of life but it is often undervalued. Sniffin' Sticks olfactory identification test is a tool used for clinical evaluation of olfactory function but the results are culture- dependent, which relies on the subject's familiarity to the odorant. The aim of this study was to develop the Malaysian version of Sniffin' Sticks olfactory identification test suitable for local population usage. **Materials and Methods:** The odorant descriptors and distractors of the original version of Sniffin' Sticks (Burghart Messtechnik, Gemany) were translated into Malay language using forward-backward translation method. The translated version was tested for familiarity. A satisfactory version is attained if the familiarity is ≥70%. The validity of the new cultural-adapted version was tested in 30 subjects with smell disorder and 30 healthy subjects with Student's t test. The test-retest reliability was tested after two weeks with interclass correlation (ICC). **Results:** Odorant descriptors and distractors that were changed to achieve familiarity ≥70% include "blackberry to durian", "chamomile to lavender", "chive to turmeric", "fir to pandan", "grapefruit to papaya", "mustard to ginger", "raspberry to Jack fruit", and "sauerkraut to turmeric". The mean score among the healthy subjects was significantly higher than the subject with smell dysfunction [13.7 (±1.05) and 8.9 (±3.50) respectively; t=7.24 (df=34.23), p<0.001]. The coefficient of correlation (r) between test and retest scores was 0.95 (p<0.001). **Conclusions:** The preliminary findings showed that the Malaysian version of Sniffin' Sticks olfactory identification test are valid and reliable. The cultural-adapted version is recommended as one of the olfactory function tests in local population.

Dental or not dental - that is the sinus question! Is the virtual reality in the cone beam computed tomography diagnosis helpful?

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ABSTRACT

Objectives: In sinus diagnosis one always has to decide if a chronic inflammation is caused by nasal or dental origin. Diagnostic imaging of the nose and the paranasal sinuses by "cone-beam computed tomography (CBCT)" is now a standard procedure in ENT. The newest generation are the "hounsfield-calibrated" CBCT. We can so perform a "virtual endoscopy" of the nose, the paranasal sinuses and other cavities of the dentomaxillary area. The question is if the virtual endoscopy provides any extra value to the answer of the question: dental or not dental? **Methods:** We used this technique in our daily work in over 200 cases. Every patient suspected to have a dental caused sinusitis was examined by us and a dentist. In every case a CBCT of the sinuses and a virtual endoscopy was performed. The results had been discussed by the ENT specialist and the dentist. It was either verified by dental examination or dental procedures. Important examples and clinical data underlining the special value of the virtual endoscopy are demonstrated. **Results:** We observed in all cases, that the use of virtual endoscopy enhances the knowledge and understanding of pathologic processes of the sinuses. It is indeed very helpful in detecting the origin of a sinusitis, whether it is dental or nasal. **Conclusion:** In our belief the virtual endoscopy is a very useful tool in the diagnosis of sinusitis, especially in differentiating between nasal or dental origin.