

dentifrices and herbal dentifrices were 3.16 ± 3.86 and 3.2 ± 4.03 , respectively.

CONCLUSION(S): The results revealed that the use of herbal products did not have positive or negative effect on oral tissues. However, long-term clinical studies with evidence-based results are needed in order to clarify the effects of herbal products on oral health of children.

<https://doi.org/10.1016/j.identj.2024.07.680>

Evaluation of the ChatGPT for Fixed Orthodontic Treatment

Selcen Eser Misir*, Perihan Dalgali Evli,
Kübra Gülnur Topsakal, Gökhan Serhat Duran
Türkiye

AIM or PURPOSE: The aim of the current study is to evaluate the quality, reliability and readability of data provided by ChatGPT-4, ChatGPT-3.5 in the field of fixed orthodontic treatment.

MATERIALS and METHOD: Guidelines on fixed orthodontic treatment were reviewed and 20 questions were listed by two researchers for patients to ask chatbots. Answers were obtained from ChatGPT-3.5 and ChatGPT-4 by two different researchers and 3 different scoring criteria, Reliability Scoring System (adapted from DISCERN), Global Quality Scale (GQS) and Simple Measure of Gobbledygook (SMOG) were used to evaluate the chatbot's answers to the 20 questions.

RESULTS: A statistically excellent level of consistency was found between the 2 researchers. Statistically significant differences were found between the groups in all 3 categories (DISCERN, GQS, SMOG) revealed statistically significant differences among chatbots ($p=0.001$, $p=0.008$, $p<0.001$, respectively). For ChatGPT-4, 3 categories were calculated as 2.25 ± 0.44 , 4.30 ± 0.571 , 19.3 ± 1.24 ; for ChatGPT- 3.5, 1.70 ± 0.470 , 3.70 ± 0.733 , 17.7 ± 1.23 respectively. For GQS values, ChatGPT-4 is considered as good quality and ChatGPT-3.5 as medium. According to DISCERN, ChatGPT-4 is more reliable than ChatGPT-3.5. According to the SMOG index, both chatbots require a graduate level education for readability.

CONCLUSION(S): In terms of reliability and quality, both AI-based chatbots showed low-medium reliability, good quality and difficult readability. Although the medical information provided by chatbots in the field of fixed orthodontic treatment is of good quality, it is recommended that individuals consult their healthcare professionals.

<https://doi.org/10.1016/j.identj.2024.07.681>

Determination of Sex Using Frontal Sinus Morphometry with CBCT

Zeliha Zuhul Yurdabakan*,¹ Özlem Okumuş²

¹Department of Oral and Dentomaxillofacial Radiology, Istanbul Health and Technology University, Istanbul, Türkiye; ²Department of Oral and Dentomaxillofacial Radiology, Altinbas University, Istanbul, Türkiye

AIM or PURPOSE: The purpose of this study is to evaluate the morphometry of the frontal sinuses and compare it with the nasal, maxillary, cranial and the mandible widths, as well as their relationship with age, sex, and side.

MATERIALS and METHOD: The randomly selected 208 patients aged from 20 to 85 years were analysed. The measurements of mesio-distal, antero-posterior, and supero-inferior dimension of frontal sinus, cranial width, nasal width, maxillary width, and mandibular width were examined using cone-beam computed tomography (CBCT). Statistical analyses were performed using Kolmogorov–Smirnov, paired sample t test, Oneway ANOVA test, Student's t-test. P values < 0.05 were accepted as statistically significant.

RESULTS: In all parameters, the average values of males were statistically significantly higher than those of females ($p<0.05$). There was no statistically significant difference between the mesio-distal, antero-posterior, and supero-inferior frontal sinus measurement between the right and left sides in all cases ($p>0.05$). There was a statistically significant difference in terms of total anterioposterior measurement among age groups ($p<0.05$).

CONCLUSION(S): This study revealed that the measurements of frontal sinuses and other cranial parameters can be useful in sex determination using CBCT.

<https://doi.org/10.1016/j.identj.2024.07.682>

Prevalence of impacted third molars: a tunisian study

Ranim Chekir*, Nouha Dammak, Sinda Yacoub,
Mehdi Khemiss, Mohamed Benkhelifa
Fattouma Bourguiba Teaching Hospital, Monastir, Tunisia

AIM or PURPOSE: AIM: To determine the prevalence of Impacted third molar (ITM), its pattern and associated affections in Tunisian patients.

MATERIALS and METHOD: This was a descriptive study carried out at the Department of Dental Medicine, Fattouma BOURGUIBA University Hospital, Monastir, Tunisia. The study reviewed panoramic radiographs of patients consulting the Fattouma Bourguiba Hospital. Orthopantomograms were analyzed to define the prevalence of ITM; its angulation, depth and relation with the anterior border of mandibular ramus. Associated pathologies such as pericoronitis, rootdental caries on the third or second molars and cyst were also assessed. Data were analyzed using SPSS software (version 18; USA). Categorical variables were expressed as frequency and percentages. Chi2 test was used to compare the qualitative data

RESULTS: 730 patients were included (286 men and 444 women). The age ranged from 19 to 89 years. The total number of ITM was 881 with a statistical difference between arches. Level C of impaction was observed more frequently in the maxilla and level A in the mandible. The most common angulation was the vertical one for both arches. 76% of ITM were presented with class II in relation with the anterior border of mandibular ramus. There was no significant difference in the frequency of impaction between gender and sides. The number of ITM associated with pathological conditions was 199. The most frequently observed pathology was the distal caries on the second molars (11.7%) followed by the caries of the third molars.

CONCLUSION(S): The prevalence of ITM among Tunisian patients was high.

<https://doi.org/10.1016/j.identj.2024.07.683>