

Prevalence of Congenitally Missing of Anterior Teeth and Premolars in Selected People Attending Dental Clinic in Basrah

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DOI: <https://doi.org/10.54133/ajms.v8i1.1671>

Keywords: Congenital missing teeth, Esthetic, Hypodontia, Orthodontics, O.P.G.

Abstract

Background: Hypodontia is distinguished by the innate absence of one or more teeth. The cause of this anomaly is multifactorial and related to environmental and genetic factors. **Objective:** To assess the prevalence of congenitally missing permanent teeth, excluding molars, in a sample of patients attending different private dental clinics in Basrah city, as early detection and treatment minimize the aesthetic and functional problems associated with it. **Methods:** A cross-sectional study was conducted by examining 530 patients clinically and radiographically, those attending private dental clinics for a period from November 2022 to March 2023. The proposed selection criteria were applied to filter the panoramic X-ray (OPG), which was then subjected to statistical analysis. **Results:** A total of 485 OPGs that met the method of selection were involved. Patients aged 9-30 years old: 18% of the sample showed congenitally missing teeth, including 68 females and 21 males. Statistical analysis detected that most of the congenitally missing teeth in this study were the maxillary lateral incisor right (18.18%), left (14.77%), followed by mandibular second premolar right

(12.50%), left (9.09%), and maxillary right and left second premolars (7.95%), about canine and central incisors showing the least ratio. **Conclusions:** The absence of teeth usually results in remarkable problems affecting aesthetics and function, so regular examination of individuals for early detection is important. According to this study, the prevalence of hypodontia was 18% of females, showing a higher prevalence than males.

Downloads



References

Polder BJ, Van't Hof MA, Van der Linden FP, Kuijpers-Jagtman AM. A meta-analysis of the prevalence of dental agenesis of permanent teeth. *Community Dent Oral Epidemiol.* 2004;32(3):217-226. doi: 10.1111/j.1600-0528.2004.00158.x. DOI: <https://doi.org/10.1111/j.1600-0528.2004.00158.x>

Nunn J, Carter N, Gillgrass T, Hobson R, Jepson N, Meechan J, et al. The interdisciplinary management of hypodontia: background and role of paediatric dentistry. *Br Dent J.* 2003;194(5):245-251. doi: 10.1038/sj.bdj.4809925.

Liu Y, Yin T, He M, Fang C, Peng S. Association of congenitally missing teeth with adult temporomandibular disorders in the urban health checkup population. *BMC Oral Health.* 2023;23:188. doi: 10.1186/s12903-023-02855-w. DOI: <https://doi.org/10.1186/s12903-023-02855-w>

Kaviani R, Makkinejad SA, Heidari F, Rakhshan V. Prevalence of congenital missing of maxillary laterals and mandibular second premolars in patients referred to Islamic Azad University, Dental Branch of Tehran, in a one-year period. *J Isfahan Fac Dent.* 2012;8:330-337. doi: 10.48305/v8i4.520.

5. Matalova E, Fleischmannova J, Sharpe P, Tucker A. Tooth agenesis: from molecular genetics to molecular dentistry. *J Dent Res.* 2008;87(7):617-623. doi: 10.1177/154405910808700715. DOI: <https://doi.org/10.1177/154405910808700715>