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Editorial

Consanguinity and dental aberrancy- The feasible intertwine!

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The word ‘Consanguinity’ is a Latin word made from “Con” meaning “Common” and “Sanguineous” meaning “Blood”. Consanguineous marriage refers to marriage between first and second cousins and may transfer of two recessive defective genes, one from the mother and the other from the father, to offspring, which may lead to the appearance of congenital aberrancies. This practice is most common in the Middle East, among Islamic populations and in South-India. The first cousins share one common grandparent and second cousins share one common grandgrandparent. Genes in first cousins show 12.5% similarities leading to the prevalence of homozygous gene loci to be 6.25%, henceforth paralleling a risk of 1 in 20 as equated to general population which carries a risk of 1 in 40. The expression of autosomal recessive disorders intensifies in consanguineous marriages leading to the transmission of disorders generation after generation. There is a plethora of literature which proves that inherited congenital malformations including dental aberrancies are more frequently seen with consanguinity.^{1,2}

Highlighting the risk of association of consanguinity with dental developmental anomalies and management:^{2,3}

Tooth development is undoubtedly influenced by genetic and environmental factors and eruption pattern encompasses an peculiar and characteristic pattern, so any disturbance in the alveolus till the tooth reaches its destination in the oral cavity may results in dental malformations. The documented research in previous literature had highlighted the significant association of consanguinity and dental developmental anomalies like microdontia, taurodontism, concrescence, oligodontia, dens in dente, supplemental teeth, supernumerary teeth, dilaceration, fusions, talons cusp, hyperdontia etc. Therefore, it is extremely important to record the consanguinity in marital section of case history and also to diagnosis syndromes with developmental anomalies of teeth. Education regarding precarious implications of consanguineous marriage should be imparted to specific groups, population or a community practicing it as this is a deep ingrained issue in some ethnic and social culture respectively. Genetic counselling is an effective way to prevent congenital anomalies so pre-marriage counselling and genetic screening to consanguineous couples should be advised by health care professionals.

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Learning points

1. There is a remarkable association between consanguinity and varied dental aberrancies.
2. It is imperative to record history of consanguinity in marital section of case history especially in children presenting with syndromes and developmental anomalies of teeth.
3. Education regarding precarious implications of consanguineous marriage should be imparted to general population especially to certain groups, communities or specific population practicing it.
4. Pre-marriage counselling and genetic screening to consanguineous couples should be advised by health care professionals.

Conflict of Interest

None.

References

1. Abbas B, Abbas S, Malik SM, Rahim M, Umair M, Khurshid Z, et al. Zohaib Khurshid Consanguineous Marriages and Dental Anomalies: A Cross-Sectional Analytical Study. *Int J Dent.* 2022;2022:9750460. doi:10.1155/2022/9750460.
2. Nouri N, Nouri N, Tirgar S, Soleimani E, Yazdani V, Zahedi F, et al. Consanguineous marriages in the genetic counseling centers of Isfahan and the ethical issues of clinical consultations. *J Med Ethics Hist Med.* 2017;10:12.
3. Kamal NM. Consanguinity Marriage Increases Risk of Newborn's Congenital Anomalies in Sulaimani City; 2020. Available from: <https://www.intechopen.com/chapters/70961>. doi:10.5772/intechopen.89257.

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