Commentary: Dental anomalies in an Etruscan adolescent

Sheldon Peck, DDS, MScD

This report, describing multiple dental anomalies observed in a fragmented maxilla unearthed in Italy and dated to the 6th century B.C., is of certain interest and use to orthodontists, dental researchers, and anthropologists. It becomes a valuable contribution to the scant literature[1,2] identifying anomalies of tooth number, size, and position occurring in ancient or prehistoric human remains.

As the author correctly notes, broader implications may be constructed from this 2500-year-old Etruscan specimen showing the associated occurrence of a palatally displaced canine, absent maxillary second premolars and reduced, peg-shaped lateral incisors. Some kind of genetically controlled interrelationship can be reasonably deduced from these coincident anomalies.[3]

The author also examines the relatively recent hypothesis that maxillary lateral incisor variations, such as small crowns or short roots, are causal factors in the development of palatal displacement of the maxillary canine. In the discussion section, this notion of local, mechanical etiology of palatal canine displacement appears to be reconciled with the evidence pointing to genetic causality. However, in bringing to light another example of multiple anomalies beyond the canine-lateral incisor locale (i.e., premolar agenesis), this case report actually undermines, not supports, the circumstantial arguments offered by others to explain these biological phenomena as mechanical outcomes.

This interesting article may stimulate some readers to investigate museum collections of cranio-osteological materials for further examples of associated dental anomalies of orthodontic relevance. The Spencer Atkinson collection at the A.H. Ward Museum of the University of the Pacific School of Dentistry in San Francisco is one such outstanding skull collection awaiting study from this perspective.

S. Peck is an Assistant Clinical Professor of Orthodontics in the Harvard School of Dental Medicine, Boston, Mass.

References

1. Nelson GC. Maxillary canine/third premolar transposition in a prehistoric population from Santa Cruz Island, California. Am J Phys Anthrop 1992;88:135-44.
2. Iseri H, Uzel I. Impaction of maxillary canines and congenitally missing third molars. Description of an ancient skull (7250-6700 B.C.). Europ J Orthod 1993;15: 1-5.
3. Peck S, Peck S, Kataja M. The palatally displaced canine as a dental anomaly of genetic origin. Angle Orthod 1994;64(4):249-256.