

[\[Print Version\]](#)

[\[PubMed Citation\]](#) [\[Related Articles in PubMed\]](#)

The Angle Orthodontist: Vol. 68, No. 5, pp. 475–480.

Canine transposition in prehistoric Pakistan: Bronze Age and Iron Age case reports

John R. Lukacs, PhD^a

^aJohn R. Lukacs, Department of Anthropology, University of Oregon, Eugene, OR 97403-1218 E-mail: jrlukacs@oregon.uoregon.edu

ABSTRACT

This report documents two prehistoric cases of canine-first premolar transposition (Mx.C.P1) from the Indo-Pakistan subcontinent. Recent discussion of the etiology of canine transposition and reports of high prevalence for the condition in modern India accentuate the significance of the ancient cases reported there. Case 1 is from the Iron Age site of Sarai Khola in northern Pakistan (1000 BC). The specimen, an adult female, 2.5 to 30 years of age at death, exhibits unilateral Mx.C.P1 transposition on the left side. The condition is associated with a barrel-shaped maxillary left third molar in an otherwise normal and healthy maxillary dental arch. Case 2 is from the Bronze Age urban site of Harappa (2500 BC), an important center of the Indus Valley Civilization. In this specimen, an adult female, transposition is bilateral, resulting in displacement of premolars and large diastemata between the maxillary lateral incisors and first premolars. Bilateral agenesis of maxillary third molars and rotation of maxillary and mandibular teeth occur with transposition in this specimen. In neither case are the lateral incisors reduced in size, peg-shaped, or congenitally absent. This report of Mx.C.P1 transposition in prehistoric times is significant because it provides historical documentation for the female predilection of the trait and establishes its co-occurrence with specific dental variants, such as agenesis, reduction, and rotation of teeth.

KEY WORDS: Dental anthropology, Canine transposition, Dental paleopathology, Bronze Age, Iron Age, India, Pakistan.

Submitted: May 1997

Accepted: August 1997.