Talon Cusp: A Clinically Significant Anomaly in a Primary Incisor from Pre-Columbian America

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Shafer, Hine, and Levy\(^1\) describe the talon cusp, a structure resembling an eagle's talon, as a cusp projecting lingually from the cingulum area of a maxillary or mandibular permanent incisor. This cusp blends smoothly with the tooth except that there is a deep developmental groove where the cusp blends with the sloping lingual tooth surface. The cusp is composed of normal enamel and dentin and contains a horn of pulp tissue.

As reported by Mellor and Ripa\(^2\) in 1970, W.H. Mitchell\(^3\) presented a case history of a patient with a "... process of hornlike shape ..." protruding from the lingual surface. This 1892 report was one of the earliest references to the dental anomaly known as talon cusp.

Mellor and Ripa emphasized that this anomaly usually requires definitive treatment as it often poses...
Fig 2—Radiograph shows the extended cingulum forming the lingual cusp from a buccal-lingual view. Note presence of caries.

problems for the patient in terms of esthetics, caries control, and occlusal accommodation.

Mellor and Ripa also emphasized that this anomaly has been reported in permanent teeth only. The case being reported in this paper is that of a talon cusp appearing in a primary left maxillary central incisor in an individual from the Paracas culture, living approximately 2200 years ago in southern Peru. The tooth is from a mummy who died between the ages of 5 and 6 years.

Fig 3—Talon cusp from an occlusal view. Note attrition on the lingual cusp.

It has been suggested by both Pindborg and by Schulze that the talon cusp may be the result of a fusion of teeth. If this is so, then this particular talon cusp would have to be the result of a fusion of the involved central incisor and a supernumerary tooth, perhaps a mesiodens, as the normal number of teeth were present. Indeed all the other primary incisors and all the permanent (unerupted) incisors were present and none of them presented any signs of a talon cusp.

The talon cusp or T-shaped incisor has been reported by Kraus, et al., by Jordan, et al., and by Schroeder and Green as occurring, although quite infrequently, in association with individuals with cleft lip and/or cleft palate. Although the deciduous teeth were studied by these authors, no reference was made to finding a talon cusp or T-shaped incisor. In our case, the mummy did not exhibit any bony cleft and it was impossible to see a soft tissue cleft as the area was devoid of soft tissue.

The clinical problems alluded to by Mellor and Ripa of esthetics and caries are self-evident in our case from the radiographs (Figures 1 and 2) and the photographs (Figures 3 and 4). The problem of occlusal accommodation is evident only from the de-
gree of attrition seen on the cusp as the mandible could not be recovered for an occlusal analysis.

Summary. The significance of this case report is primarily that for the first time the dental anomaly of the talon cusp is reported in the primary as well as in the permanent incisors; it is the earliest recorded case of a talon cusp. The fact that this anomaly appeared in the primary dentition without affecting the permanent dentition is also significant. As can be seen from this report, the clinical problems of esthetics, occlusal accommodation, and caries control require early diagnosis and clinical management. The talon cusp is an uncommon anomaly which has appeared for centuries in the primary as well as in the permanent dentition.

REFERENCES


