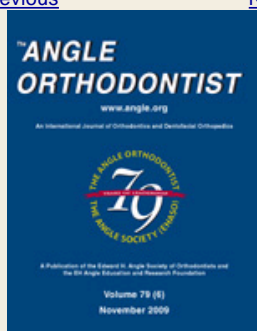


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Original Articles

Skeletal Anomalies and Normal Variants in Patients with Palatally Displaced Canines

Rosalia Leonardi^a, Ersilia Barbato^b, Maurizio Vichi^c, and Mario Caltabiano^d

Abstract

Objective: To test the null hypothesis that there is no increased prevalence of skeletal anomalies and/or normal variants as evidenced by the cephalometric radiographs of patients with palatally displaced canines (PDC).

Materials and Methods: The treatment records of 38 white subjects between 14 and 20 years old with PDC were collected and evaluated retrospectively. Inclusion criteria for the study required that the case records include good-quality panoramic radiographs and lateral cephalometric radiographs with the first four cervical vertebrae clearly visible. The anomalies recorded for each case included sella bridge, atlanto-occipital ligament calcification or ponticulus posticus, and posterior arch atlas deficiency. A control group consisted of 70 consecutively treated subjects who had no other dental anomalies and whose maxillary canines had erupted normally. Fisher's exact test and Pearson's chi-square test were used to determine possible statistically significant differences in the incidence of skeletal anomalies and/or normal variants between the group of patients with PDC and the control group.

Results: The prevalence of skull anomalies and normal variants seen in cephalometric radiographs was increased in patients with PDC. Because of the presence of ponticulus posticus (Pearson's chi-square, $P < .050$; Fisher's exact test, $P < .052$), sella bridge (Pearson's chi-square, $P < .042$; Fisher's exact test, $P < .042$), and posterior arch deficiency (Pearson's chi-square, $P < .047$; Fisher's exact test, $P < .039$), statistically significant differences were observed between subjects with PDC and the control group.

Conclusions: The null hypothesis was rejected. There is an increased prevalence of skull skeletal anomalies and/or normal variants in patients with PDC.

Keywords: [Palatally displaced canine](#), [Skeletal anomalies](#), [normal variant](#), [Cephalometric radiograph](#)

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