

## Bifid Mandibular Canal in Children- A Literature Review and Report of Four Cases.

Chandki, R\*<sup>1</sup>, Weng, L<sup>2</sup>, Puranik, CP<sup>3,4</sup>

International Student Program<sup>1</sup>, Doctoral Program<sup>2</sup>, Department of Pediatric Dentistry<sup>3</sup>, School of Dental Medicine, Children's Hospital Colorado<sup>4</sup>, University of Colorado Anschutz Medical Campus

**Purpose:** The purpose of this study was to review the literature on bifid mandibular canals (BMC) in pediatric patients and present four cases of children with BMC.

**Method:** Medical subject headings (MeSH) were generated and used to conduct PubMed®/MEDLINE literature search on BMC. After initial abstract review, articles meeting the selection criteria were reviewed. Additionally, panoramic radiographs from four children with unilateral or bilateral BMC were discussed.

**Results:** The literature search revealed BMC prevalence of 0-38.7% and 15.6-65.0% in adults using panoramic and cone beam computed tomographic (CBCT) images, respectively. The prevalence of BMC in children was 27% using CBCT images. The most common type of BMC was retromolar canal (11.1%); whereas, commonly reported clinical implication of BMC was failure to achieve adequate inferior alveolar nerve block.

**Conclusion:** Although limited, routine panoramic radiographs are diagnostic for BMC in children and such a finding should be considered during restorative-surgical care.