

# A Study of Double Condylar Facet in North Indian Crania

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## ABSTRACT

Studies of nonmetric cranial variants have been a field of considerable interest to research workers, especially, because of their racial and regional importance. A total of 28 Indian skulls of Northern India (Uttar Pradesh) were studied for the double condylar facet, a cranial variant in the present study. Findings are gathered, discussed, and compared with other studies from other parts of the world and are found to be of considerable significance.

**Keywords:** Cranial variant, Developmental processes, Double condylar facet.

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## INTRODUCTION

Occasionally, the articular surface of occipital condyle is divided into two distinct facets: The double condylar facet.

Nonmetric cranial variants have been a subject of study by many pioneering workers.<sup>1</sup> Many variants have been observed on a racial basis and are of considerable ethnic interest, but of lesser forensic importance.<sup>2</sup> Berry<sup>3</sup> made a special study of nonmetrical human cranial variants.

This study is undertaken to know the incidence of double condylar facet variants and to draw significant conclusion, if any, from this study.

## MATERIALS AND METHODS

A total of 28 North Indian human crania were studied from the Museum of Anatomy at Rohilkhand Medical College, Bareilly, and the incidence of double condylar facet was documented from these crania (Fig. 1).

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## RESULTS

Out of 28 skulls studied, double condylar facet was seen in 5 skulls. Thus the incidence of this cranial variant was 17.7%.

## DISCUSSION

Cranial variants have aroused the curiosity of anatomists for many decades.<sup>4</sup> It was Wood-Jones,<sup>5</sup> however, who first proposed that the differing incidences of these minor variants which occurred in different races might be useful in anthropological studies. Laughlin and Jorgensen<sup>6</sup> put this idea in practice and Berry and Berry<sup>2</sup> suggested that a wide range of these variants could be used to calculate a distance statistic between population samples.

This paper is concerned with the description and racial and regional incidence of double condylar facet, one of the important cranial variant.

Like all other variants, cranial variants have been studied by many workers and most of them are recognized only in the anatomical textbooks, as being described in terms, such as rare or occasionally found; nevertheless, a few of them have been utilized as anthropological markers.<sup>7,8</sup> Some variants are consequences of disease or other extrinsic influences<sup>9-11</sup>; however, most of these variants result from normal developmental processes and are genetically determined.<sup>2</sup>

For a particular race, the frequency of any particular variant is more or less constant and is somewhat similar in related races. It was Chambellan<sup>12</sup> who seems to have



Fig. 1: Double condylar facet

**Table 1:** Double condylar facet<sup>3</sup>

<i>Egypt (summed)</i>	<i>Nigeria (Ashanti)</i>	<i>Palestine (Lachish)</i>	<i>Palestine (Modern)</i>	<i>India (Punjab)</i>	<i>Burma</i>	<i>North America (British Columbia)</i>	<i>South America (Peru)</i>	<i>Our study (UP) North India</i>
1/485 skulls	1/112 skulls	0/104 skulls	1/36 skulls	0/106 skulls	1/97 skulls	1/98 skulls	0/106 skulls	5/28 skulls
0.2%	0.9%	0%	2.8%	0%	1%	1%	0%	17.7%

been first to suggest the possibility of using such traits as anthropological characters.

In 1900, Russel gathered together data on a number of skull variants in American group and gave the first indication of their use in the comparison of populations. Wood-Jones<sup>5,13</sup> used data on skull variants in a more systemic comparison number of far eastern group.

Berry<sup>3</sup> made a special study of nonmetrical human cranial variations. His findings are given in Table 1. In our study, it was observed that double condylar facet was present in 5 crania. Hence, the current study provides valuable data from Uttar Pradesh, one of the largest state of India, and compares with the data from different parts of the world.

The findings are of considerable racial and regional global significance.

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