A Study Of Patent Posterior Condylar Canal In North Indian Crania

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Abstracts: Background Studies of non-metric cranial variants have been a field of considerable interest to research workers especially because of their racial and regional importance. Methodology: Total of 28 north Indian human crania of U.P. was studied for the incidence of patent posterior condylar canal. Results**:** Patent posterior condylar canal was found in 9 (32.1%) of total human crania. Conclusion: The presence of patent posterior condylar canal found to be of considerable regional and racial significance. [Gupta R et al NJIRM 2015; 6(3):58-59]

Key Words: Cranial variant, Patent posterior condylar canal.

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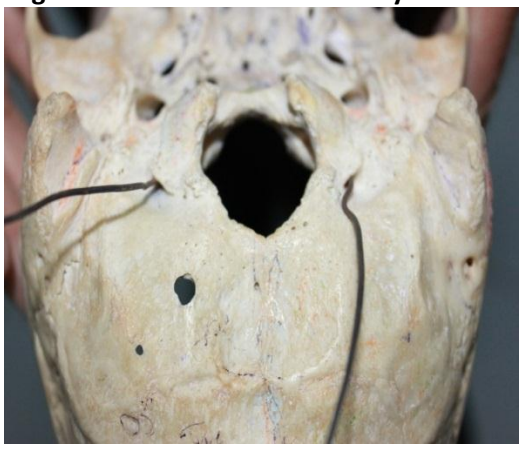
Introduction: Posterior condylar canal usually pierces the condylar fossa which lies immediately posterior to the occipital condyle. It may be blind or patent.

Non-metric cranial variants have been a subject of study by many pioneering workers Todd and Tracy[1]. Many such variants have been observed on a racial basis also by Berry and Berry [2] and are of considerable ethnic but lesser forensic interest. Berry[3] made a special study of non meterical human cranial variants including patent posterior condylar canal.

Present study is undertaken to know the incidence of variant of patent posterior condylar canal and to draw significant conclusion, if any, from this study.

Material and Methods: 28 north Indian human crania were studied for this study. Human crania of museum of Rohilkhand medical college Bareilly were studied. Incidence of patent posterior condylar canal was noted in these crania.

Figure. 1 Patent Posterior Condylar Canal



Results: The posterior condylar canal is often patent and sometimes blind also. Patent posterior condylar canal variant was noted in 32.1% skull in the museum of anatomy department of rohilkhand medical college, bareilly. It was seen in 9 skull out of 28 skull .

Table 1: Comparision With Other Studies

Workers	Global Region	Skulls studied	Incidence (%)
Berry[2]	Egypt (summed)	250	42.5%
	Nigeria (Ashanti)	56	33.9%
	Palestine (Lachish)	54	38.5%
	Palestine (Modern)	18	13.3%
	India (Punjab)	53	41.5%
	Burma	51	45%
	North America (British Columbia)	50	69%
	South America (Peru)	53	70.5%
ZaidiS.H. H et al	North India	28	32.1%

Discussion: Cranial variants have aroused the curiosity of anatomists for many decades Le Double[4].It was Wood Jones[5],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[6] put this idea in practice. Berry and Berry[2] suggested that a wide range of these variants could be used to calculate a distance statistic between population samples.

This paper is concerned with description and racial & regional incidence of patent posterior condylar canal, one of the important cranial variant. Cranial variants like all other variants have been studied by many workers; most of them are recognized only

by mention in anatomical text books, being described in terms such as rare or occasionally found; nevertheless a few of them have been utilized as anthropological markers Broth well[7,8] .Some variants are consequences of disease or other extrinsic influences Moller-christensen and Sandison[9] ,Roche[10] and Dorsey[11];however most of these variants result from normal developmental processes and are genetically determined Berry & Berry[2] .

The frequency of any particular variant is more or less constant in a given race and is somewhat similar in related races. Chambellan [12] seems to have been first to suggest the possibility of using such traits as anthropological characters. Russel [13] 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 .Woodjones[14] used data on skull variants in a more systemic comparison number of far eastern group.

Berry[3] made a special study of non-metrical human cranial variations including patent posterior condylar canal. His findings are given in the Table No. 1. In our study it was observed that patent posterior condylar canal were present in 32.1% of crania. Hence, the current study provides valuable data from U.P. the largest state of India, and compares the same with data of different global regions. The findings are of considerable racial and regional global significance.

Conclusion: After comparison with available data of other races and regions, we have seen that there is significant difference in incidence of patent posterior condylar canal in north Indian region then the incidence in other global region; hence we believe that the knowledge of patent posterior condylar canal is of importance to the anthropologists, neuro anatomist, neurosurgeons, radiologists , morphologists.

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