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A Study of Highest Nuchal Line in North Indian Crania.

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ABSTRACT

Studies of non-metric cranial variants have been a field of considerable interest to research workers especially because of their racial and regional importance. 18 north Indian skulls of U.P. were studied for the highest nuchal line a cranial variant in the present study. Findings are discussed and compared with other global studies and are found to be of considerable regional and racial significance.

Keywords: non metric, cranial Variant, highest nuchal line, racial

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INTRODUCTION

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

Present study is undertaken to know the incidence of variant of highest nuchal line and to draw significant conclusion, if any, from this study.

MATERIAL AND METHODS

18 north Indian human crania were studied for this study. 18 human crania of museum of Rohilkhand medical college Bareilly were studied. Institutional ethical committee clearance was taken for this study. Incidence of highest nuchal line was noted in these crania; attention was also paid to whether this variant was bilaterally present or unilaterally present and if unilateral whether it is more on right side or left side.

RESULTS

Out of 18 crania studied, highest nuchal line was bilaterally found in 9 crania, (50%)(Fig 1). It was absent in the rest of the 9 cases both bilaterally and unilaterally(Table 1)

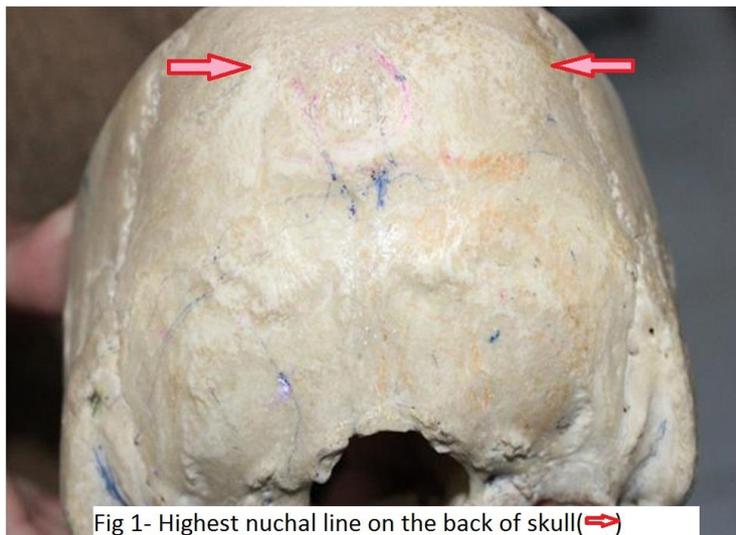


Fig 1- Highest nuchal line on the back of skull(⇔)

TABLE 1: Incidence of highest nuchal line in different studies in different races

Egypt (summed)	Nigeria (Ashanti)	Palestine (Lachish)	Palestine (Modern)	India (Punjab)	Burma	North America (British Columbia)	South America (Peru)	Our study (U.P) North India 18 skulls
250 skulls	56 skulls	54 Skulls	18 skulls	53 skulls	51 skulls	50 skulls	53 skulls	18 skulls
16.6%	11.6%	7%	8.3%	17.9%	9.8%	24%	27.4%	50%

DISCUSSION

Cranial variants have aroused the curiosity of anatomists for many decades [4]. It was Wood Jones however who first proposed that the differing incidences of these minor variants which occurred in different races might be useful in anthropological studies [5]. Laughlin & Jorgensen put this idea in practice [6] and

Berry & Berry suggested that a wide range of these variants could be used to calculate a distance statistic between population samples [7].

This paper is concerned with description and racial & regional incidence of one of the important cranial variant, the highest nuchal line.

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 markers⁸. Some variants are consequences of disease or other extrinsic influences [9-11]; however most of these variants result from normal developmental processes and are genetically determined [2].

The frequency of any particular variant is more or less constant in a given rare and is somewhat similar in related races. Chambellan seems to have been first to suggest the possibility of using such traits as anthropological characters [12].

Russell in 1900 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 [13]. Wood Jones used data on skull variants in a more systemic comparison number of far eastern group.

Berry made a special study of non metrical human cranial variations including the highest nuchal line [3]. In our study it was observed that highest nuchal line is present in 50% cases.

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.

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