

Histomorphological and Quantitative Characteristics of Black and Gray Human Scalp Hair

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ABSTRACT The objective of the present study was to understand the histomorphological and quantitative characteristics of black and gray human scalp hair. A total of 440 hair samples (220 black hairs and 220 gray hairs) were collected from 22 adult Bengalee males of West Bengal, aged between 30- 80 years. The hair samples were washed, scanned and measured by standard techniques. Medullary index was calculated. Comparison of medullation types revealed that continuous type of medullation was more common (44.09%) in gray scalp hair compared to the black scalp hair (12.72%). Medullation was absent in 48.18% black scalp hair. However, the occurrence of discontinuous medullation was nearly equal in both black and gray scalp hair (39.09% vs. 38.63%). Crenate type of cuticle was more common than flattened in both types of scalp hair, although the prevalence was comparatively higher in gray scalp hair (71.80%) than black scalp hair (67.70%). Compared to the black scalp hair, gray scalp hair revealed significantly ($p < 0.05$) higher mean medullary diameter and medullary index. However, there was no significant difference in the mean shaft diameter between black and gray scalp hair, though, a trend of higher shaft diameter in gray scalp hair was observed.