

Nutrient Foramina of the Lunate Bone of the Hand - an Anatomical Study

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Abstract : Background: The lunate bone dislocation can lead to the compression of the median nerve and subsequent carpal tunnel syndrome. The dislocation can interrupt the vasculature and would cause avascular necrosis. The objective of the present study was to study the morphology and number of the nutrient foramina in the cadaveric dried lunate bones of the Indian population. Methods: The present study included 28 lunate bones (13 right sided and 15 left sided) which were obtained from the gross anatomy laboratory of our institution. The bones were macroscopically observed for the nutrient foramina and the data was collected with respect to their number. The tabulation of the data and analysis were done. Results: All of our specimens (100%) exhibited the nutrient foramina over the non-articular surfaces. The foramina were observed only over the palmar and dorsal surfaces of the lunate bones. The foramen ranged between 2 and 10. The foramina were more in number over the dorsal surface (average number 3.3) in comparison to the palmar surface (average number 2.4). Conclusion: We believe that the present study has provided important data about the nutrient foramina of the lunate bones. The data is enlightening to the orthopedic surgeon and would help in the hand surgeries. The morphological knowledge of the vasculature, their foramina of entry and their number is required to understand the concepts in the lunatomalacia and Kienbock's disease.

Keywords : avascular necrosis, foramen, lunate, nutrient

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