

## Short paper, Morphometric study of the cerebrum and cerebellum in Indian Gray Mongoose (*Herpestes edwardsii*)

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### Abstract

Mongoose is a common name for 30 species of the family Herpestidae found in a vast area of southwestern Asia, especially Iran. Morphometric studies of the brain have been topics of interest to anatomy researchers due to their high importance in veterinary and zoology fields. The present study was conducted to better understand the brain's morphometric features in Mongoose because of the lack of information about the brain structure in wild carnivores. For this purpose, eight carcasses of adult mongooses were used. They were found in different Fars province areas in Iran, which were dead due to natural causes. The brain was then carefully separated from the skull, and all the measurements and observations related to different parts of the brain were recorded. The values entered the computer separated by gender, and SPSS 22 and T. student tests were used for statistical analysis while the significance level of  $P \leq 0.05$  was considered. This study showed that the ratio of brain weight to body weight (EQ) and the ratio of cerebellum weight to total brain weight in mongoose are higher than other carnivores. All the brain's morphometric findings in mongooses are in unparalleled harmony with their lifestyle. Also, no difference was found between the mongoose and other carnivores such as dogs and cats regarding the gyri and sulci's number and pattern. The current work is a preliminary assessment, and new imaging methods are suggested for more advanced studies.

**Key words:** Mongoose, Brain, Anatomy, Morphometry

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