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ANATOMY OF THE CHINKARA SKULL (GAZELLA GAZELLA)

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The skull of the chinkara when viewed from above was irregularly triangular in outline. The occipital bone formed all of the nuchal surface of the cranium. The mastoid foramen was situated in the occipital bone. The process cornuas is projected at the dorsal margin of the orbit. The horns harbour 20-23 transverse ridges. The frontal sinus is absent while ethmoidal sinus is present. The body of mandible is short and flat having six alveoli for incisor teeth. The canine teeth are absent.

Kcy words: anatomy. chinkara skull

iNTRODUCfION

Pakistan has a large population of deer of different breeds at various zoos and wildlife parks. Apart from its aesthetic value. this animal provides meat milk, and hides. The study of wildlife has been recently incorporated in veterinary sciences curricula. The literature on anatomical aspect of chinkara is limited therefore the present study was undertaken to observe the gross anatomical features of the chinkara skull,

MATERIALS AND METHODS

The carcases of adult male chinkara deer aged 2-3 years, were received after postmortem from wildlife park at Gatwala, Faisalabad (Pakistan). The bones were cleansed. processed and prepared for study (Young. 1lJ80).

RESULTS AND DISCUSSION

Viewed' from above. the skull of the chinkara is irregularly triangular in outline. It is wide in the frontal region between the orbits and markedly narrow anteriorly. The occipital bone forms all of the nuchal surface of the cranium. It joins the parietal bone at transverse suture. The parietal and nuchal surfaces arc separated by a rough transverse ridge. The mastoid foramen is situated in the occipital bone in contrast to ox where it lies at the junction ofthe occipital and temporal bones (Getty, 1lJ75). The sphenoid, the ethmoid and the parietal bones resemble those of ox and sheep (Sisson, I(5). The frontal bone is less extensive and has shallow fossae rostral and caudal to the process cornuas. Unlike ox the process cornuas projected at the dorsal margin of the orbit (Fig. I). is located at the junction of the posterior and lateral border of skull. and unlike sheep it projects from the lateral part of the external surface. little behind a transverse plane through the posterior margin of the orbit (Sisson, 1(5). The horns harbour 20-23 transverse ridges. The distance in between the ridges increases towards the top of the process. The supraorbital foramen is at the anterior margin of the process cornuas situated in a deep fossa. being behind the transverse plane through the middle of the orbit.

The temporal bone resembles that of the sheep. The frontal sinus is absent as reported by Pohlmeyer (1985). In the maxilla bone. the infra-orbital foramen is situated over the second check tooth and facial tuberosity is located over the fourth cheek tooth. The pre-maxilla has a narrow and pointed body which is concave dorso-mcdiallv Palatine fissures are large and narrow as in sheep (Gcttv. 1lJ75). The pterygoid is broad above and narrow below, when: it ends in a sharp pointed hamulus. Unlike sheep. the nasal bones are notched anteriorly (Fig.2 l.The lacrimal bone is quadrilateral and elongated in outline anterior to the orbit. It forms a deep lacrimal fossa adjacent to the malar bone. The latter is irregularly quadrilateral in outline Ethmoidal sinus is present as reported earlier in respect of fallow deer by Pohlmeyer (1985)

The mandible is the largest bone ofthe skull (Fig. I1. consisting of two symmetrical halves each containing a symphysis mandibulae as in leopard (Ray et al., 1lJlJ7) The bodv is short and flat having six alveoli for 1(11\ er incisor teeth. The canine teeth are absent. Lateral border of the mandible is concave. The intermandibular space formed by right and left rami is 'v' shaped \\ hich conforms 10 the findings of Bordoloi et al. (1995) The rami are slightly curved and have pronounced angles. The ventral border is convex in its length: its alveolar border bears six alveoli for lower cheek teeth which increase in size from before backward. Posterior border of vertical rami is thin. concave and sharp. Mandibular foramen is in the middle of medial surface as in sheep (Sisson. 1(5) Condyles are medially projected. having slightly concave articular surfaces. Coronoid process is extensive and curved backward.

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Fig. 1.