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**Short Communication**

# GROSS ANATOMY OF THE FIRST RIB OF WHITE BENGAL TIGER (PANTHERA TIGRIS TIGRIS)

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## SUMMARY

Gross anatomical study was undertaken on first pair of rib of an adult 13-years old White Bengal Tiger (*Panthera tigris tigris*). The rib had proximal bony portion (os-costale) comprising of a body and two extremities and a distal cartilaginous portion (cartilagio-costalis). The body (corpus costae) was constricted in middle and expanded at the extremities. A faint ridge divided the articular surface of head into two articular facets. The caudal part of the neck joined the body and presented a deep distinct fossa, dorsally. The tubercle had a prominent lip at its margin. A prominent ridge descended from the tubercle on the body of the rib.

**Key words:** First rib, White Bengal tiger

The White Bengal Tiger (*Panthera tigris tigris*) is one of the important breeds of India developed for attracting visitors and has been declared as one of the endangered species. Efforts are on for conservation of tiger population which is decreasing very fast in India. The literature lacks the description of the first pair of rib in tiger. The pair of the first rib forming the lateral wall of the thoracic inlet was studied for gross anatomical details.

A pair of first rib was collected during the post-mortem examination of a 13-year old White Bengal Tiger that died in the zoo (Bhilai, Chattish Garh). The bone was macerated, cleaned, processed and prepared for study (Young, 1980).

The first rib showed proximal bony portion (os-costale) and a distal cartilaginous portion (cartilagio costalis) (Fig 1) as described by Sisson and Grossman (1962), Nickel *et al.* (1986), Budras *et al.* (1994) and Dyce *et al.* (1996) in dog. The bony portion of the rib had a body and two extremities. The body (corpus-costae) was constricted in middle and expanded at the extremities. However, an enormous increase in width of rib was reported in proximal to distal direction in other species like ox, horse and pig (Sisson and Grossman, 1962). Its length was 9 cm. The body was prismatic in proximal 2/3rd part and compressed in distal 1/3rd part between its lateral and medial surfaces. The body presented a concave cranial border. The proximal prismatic part had medial, lateral and caudal surfaces. The lateral and caudal surfaces were separated by a prominent ridge which, descended from the lateral surface of the tubercle. The presence of such ridge has not been described in any domestic species. After the disappearance of the ridge, the lateral and caudal surfaces merged together to form the single lateral

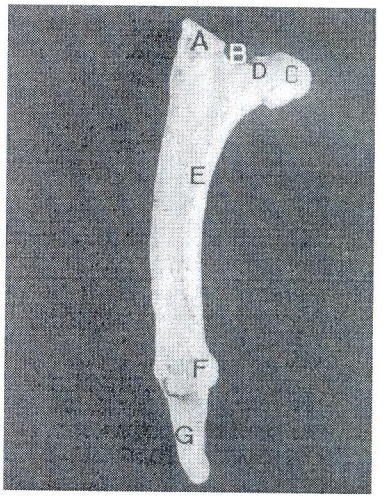


Fig 1. Left first rib of White Bengal Tiger (caudal view)
A- tubercle, B- fossa, C- head, D- neck, E- body,
F- distal extremity, G- costal cartilage

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