

# FIRST REPORT OF AN OCCURRENCE OF SCOLIOSIS AND CONGENITAL MALFORMATION IN A YOUNG AFRICAN SPURRED TORTOISE (*CENTROCHELYS SULCATA*)

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## RESUMO

The African Spurred Tortoise (*Centrochelys sulcata*) is the third largest chelonian in the world, originating in the African continent and occurs in savannah and semi-desert areas, being listed in the Category CITES II due to the significant decrease in natural populations in the wild. Malformations are abnormalities usually related to abnormal embryonic development of a limb or some part of the body that can occur for various causes. We report here the occurrence of scoliosis and congenital malformation in a juvenile African spurred tortoise. An African Spurred (*Centrochelys sulcata*), approximately 1 year old, weighing 130 grams, of undefined gender, was attended by the team at Fábio Veterinary Consultancy in May/2022. The person responsible for the animal reported during the anamnesis that he had the animal since 1 month of life, having acquired it from an amateur breeder, it was reported that the animal had a general condition and adequate behavior, normophagia, normochesia, but in the clinical inspection it showed a definite malformation of the shell, presenting absence of one of the carapace shields, decrease in the size of the central shields and a deviation of the vertebral column that raised clinical suspicion of scoliosis. A radiograph in the dorsoventral projection and a tomography of the coelomic cavity were then requested. The results of the imaging tests did not show any changes in the animal's organs, confirming its adequate clinical status, but the radiography and tomography images confirmed the clinical suspicion of scoliosis. The animal had a scoliotic deviation to the right of the caudal third of the spine. The presented report is demonstrated in the bibliography as the first description of spinal alteration and congenital malformation in *Centrochelys sulcata*. Other reports of alterations in the vertebral column have already been described for the species, but they were adult individuals and the alterations were related to nutritional factors and carapace pyramiding, or related to Traumas/Fractures of the vertebral column. Malformations in terrestrial chelonians have already been reported in other species. It is estimated that malformations run at about 10% due to environmental factors, 25% due to genetic factors and 65% due to unpublished factors. In the presented case, the authors believe that the malformation is related to environmental factors such as the egg's incubation temperature, as per a conversation with the person responsible for the animal, who reported that the amateur breeder who provided the animal had reported that, in the period of incubation of the egg of this individual, there was a drastic oscillation in the temperature of the incubator.

**PALAVRAS-CHAVE:** Chelonians, Embryogenesis, Radiography, Tomography, Vertebral Column

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