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## HOMOLOGOUS BLOOD TRANSFUSION IN AN AFRICAN SPURRED TORTOISE (*Geochelone sulcata*)

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### ABSTRACT

#### Case Summary

On July 13, 2008 a 5-yr-old, 6.35-kg, male, African spurred tortoise (*Geochelone sulcata*) was presented for anorexia, vomiting, and episodic circling. Physical examination was unremarkable other than severe carapacial scute pyramiding and pale pink oral mucous membranes. A 3-cm diameter subcutaneous hematoma formed after phlebotomy of the jugular vein. Clinical laboratory findings included hypoalbuminemia (0.62 g/dl; reference range 1.4–1.8 g/dl),<sup>1</sup> and unremarkable estimated thrombocyte count (35/100 WBC; reference range 25–350/100 WBC).<sup>2</sup> Radiographic projections revealed seven screw-shaped metal and numerous mineral density foreign objects in the region of the large intestine. The metal density objects had sharp points, so could cause intestinal ulceration or perforation. Hematoma formation together with hypoalbuminemia and normal thrombocyte count could indicate that proteins of hepatic origin were insufficient for coagulation and oncotic pressure. Blood or plasma transfusion might provide sufficient proteins to prevent life-threatening hemorrhage during surgery. Three adult *G. sulcata* donated blood (<0.5% of body weight each; anticoagulated in citrate-phosphate-dextrose-adenine). Major and minor crossmatches were compatible. Whole blood (52 ml) was transfused via jugular catheter. Enterotomy was performed to remove foreign objects via plastronotomy. Intraoperative bleeding was unremarkable and the patient recovered uneventfully from anesthesia. Presenting signs resolved. The esophagostomy tube was removed after 2 wk (reliable voluntary eating). Histopathologic exam of hepatic biopsy revealed severe hepatic lipidosis. Treatment included vitamin K, milk thistle extract, and lactulose. Albumin steadily increased over the 8 mo following surgery. Homologous blood transfusion is uncommon in reptiles,<sup>3</sup> but did not seem detrimental in this case.

#### LITERATURE CITED

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