## Interdigital Papilloma in a Black Rhinoceros

A 9-YEAR-OLD male black rhinoceros (Diceros bicornis), weighing approximately 1,100 kg., developed slight tenderness of the front feet and excessive tissue growth in the interdigital space between the 2nd (medial) and 3rd (central) digits of both front feet (Fig. 1). As the

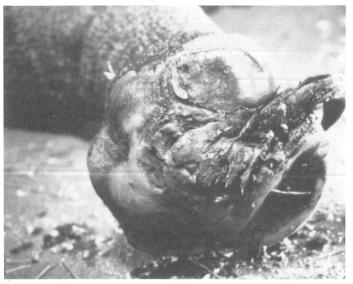


Fig. 1—Papilloma between the 2nd (medial) and 3rd (central) digits of the left front foot of a black rhinoceros.

lameness became more exaggerated and the tenderness more pronounced, it was elected to remove the masses from the interdigital spaces. For immobilization, etorphine hydrochloride (M99, American Cyanamid Company, Princeton, NJ) (2 mg.) and acepromazine (Ayerst Laboratories Incorporated, New York, NY) (25 mg.) were given intramuscularly by means of a projectile syringe fired from a CO<sub>2</sub>-powered pistol. Within 6 minutes, the rhinoceros started circling. After another 12 minutes, the rhinoceros walked with the classical "goose-step," an exaggerated lifting and placing of the forelimbs. The rhinoceros was then forcibly pulled to its side, before it became excited. It remained in lateral recumbency for the remainder of the procedure.

A papilloma measuring 15 by 10 by 8 cm. was removed from the left front foot and a papilloma 5 by 5 by 3 cm. was removed from the right front foot. Each mass was removed by curettage, with hemorrhage controlled by electrocautery. Copper naphthenate (Koppertox, Ayerst Laboratories Inc., New York, NY) was then applied topically, and antibiotics were administered parenterally. Within 2 minutes after diprenorphine (M50-50, American Cyanamid Company, Princeton, NJ) was given (4 mg. intravenously and 4 mg. intramuscularly), the rhinoceros was up on its feet and walking.

Histologically, each mass had the configuration of a papilloma, with the epithelial layer producing horn. For 3 days the rhinoceros continued to experience tenderness in both front feet and stayed off his feet more than usual. After 1 week, however, he began walking normally. Eight months after surgery, the rhinoceros was doing well, without any complications.—William J. Boever, D.V.M., St. Louis, MO 63110.

## Effect of Ascorbic Acid on Parainfluenza-3 Virus Infection in Cotton-Topped Marmosets

Ascorbic acid was added to the diet of 14 cotton-topped marmosets (Saguinus oedipus) for 108 days before and 35 days after intranasal inoculation with a strain of parainfluenza-3 virus of marmoset origin. Seven marmosets were used as controls. Vitamin C supplementation did not prevent virus infection or primary immunologic response, but it delayed onset of disease, reduced clinical response, and decreased mortality (57% vs 36%).—B. L. Murphy in Lab Anim Sci, 24, (Feb, 1974): 229.