SNOW LEOPARD SURGERY

Dr. Sue Mainka, Veterinary Services

Snow leopards are rare, elusive cats native to the Himalayan mountain range. They are an endangered species with a captive world population of 250-300 and a wild population estimated at about 300. Zoos are attempting to save the snow leopard from extinction by careful management of the captive population. Every animal in every zoo is important to this program and the Calgary Zoo snow leopards are a valuable asset to the Species Survival Plan.

Cheyenne, the Calgary Zoo's 11 year old male snow leopard, is a world famous cat due to total hip replacement surgery which was done in August 1983 to remedy severe hip arthritis from which Cheyenne suffered. The surgery relieved his discomfort and allowed him to breed. The happy result of this surgery can be seen at our zoo in the form of three snow leopard cubs; Tolstoy (b. June 3, 1985) and Dimitri and Katarina (b. May 4, 1986).

Early this year, however, Cheyenne began to limp again. He was not eating well and did not move around his enclosure at all. We had to anesthetize him to take x-rays and evaluate his lameness. The examination revealed that the hip replacement had loosened and was causing the big cat considerable pain.

The original hip implant consisted of two parts — a plastic socket which was cemented in place in the pelvis and a steel ball which was anchored into the thigh bone. The cement holding the plastic socket in place had cracked and loosened so the joint was no longer stable.

Zoo staff decided it was necessary to revise the previous surgery using a state-of-the-art, computer designed and manufactured, hip implant provided for us by the Techmedica Company of California. Using Cheyenne’s hip x-rays they custom built a new hip socket out of a space age metal called titanium.

The original hip replacement surgery is a highly specialized area of expertise and the two surgeons who had done the original 1983 surgery were asked to return and perform the revision.

On May 3, 1986 Dr. Hap Paul, veterinarian and Dr. Bill Barger, medical doctor performed the surgery on Cheyenne with the help of Dr. Joe Chenger, a local orthopedic surgeon. Dr. Andrew Kelly, a veterinary anesthetist joined the team because Cheyenne was known to be a difficult patient to anesthetize. The surgery was performed at the University of Calgary Animal Resource surgical suite. Cheyenne recovered quickly from this surgery. A small complication occurred during the initial post-operative period which resulted in dislocation of the new joint. However, a brief surgical procedure on May 10 to slightly modify the new socket was all that was needed.

Since the second surgery Cheyenne has improved steadily and now he is walking pain-free in the snow leopard exhibit with his mate Irina.

Tolstoy was born in 1985.

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Dimitri and Katarina added two more to the less than 300 Snow Leopards in captivity.