

Snake bites in Indian Zoos and after care of affected Animals

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September, 2007

Sole male rhino at the Delhi Zoo Raja (10) died on Saturday evening after receiving snake bites. He received around five snake bites on his mouth and neck region. The post-mortem revealed that most of the body organs had been damaged or 'digressed' due to presence of high volume of snake venom. The entire mouth and neck region of the rhino was reportedly swollen.

"Raja died at 6.32 pm, two and a half hours after zoo authorities found him, Zoo director D N Singh said. He added, "Our efforts to provide first aid relief to the rhino failed because the CPWD had not repaired electrical connections in both the rhino enclosure and the medical storeroom."

We could not use the water pump to wash away the poison and we also took some time to get the medical first aid kit from the store room as it was dark. All these could have saved Raja's life. According to sources, it was very late when the zoo medical officials realised that it was a snake bite. Former NDMC vet S Bahadur who conducted the postmortem said, "For animals it is difficult to find out the exact cause of death, especially in the case of a snake bite. An anti venom needs around an hour to work. Raja was let out with female rhino Maheshwari for breeding since July 30, and according to zoo officials, the breeding was successful. The incident has also raised questions on the safety of animals in the zoo with regard to natural threats like snakes. (Source: Express News Service, 8 Sep 2007).

August, 2012

A male Himalayan bear died of snakebite at the National Zoological Park, the second such death in the span of a week. An adult male bison had died of snakebite on July 28 at the park, also known as the Delhi zoo. Incidentally, the bear's death is the sixth at the zoo since July 7. The 24-year-old bear that died on Wednesday was brought to the zoo in 2004 after its rescue from a bear trainer in Rohtak.



Lion enclosure



Cobra killed by Lion cubs in November 2012

"The bear was a mature, old one... had lived a full life. But it died of snakebite which was evident from the result of the post-mortem," said RA Khan, the zoo's curator (education)."

The curator said there were several ways snakes could enter cages. "There are so many ways that the snakes make way into the cages and enclosures of the animals," said Khan. With large green areas, shrubs and sprawling lawns, the zoo abounds with snakes and other reptiles, especially

during the monsoon. However, their numbers are kept in check by peacocks, peahens and mongoose. The delay in rains and increased humidity could have forced reptiles into the open in large numbers. The recent deaths have come nearly five years after a rhinoceros had died from snakebite. (Source: Hindustan Times, 3 Aug 2012)

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Lion recovering from Snake Bite.

Tata Steel Zoological Park, Jamshedpur

Tata Steel Zoological Park acquired five Transvaal lions from National Zoological Gardens of South Africa, which arrived in the zoo on 21.06.2012 after a long journey of 48 hours with a transit halt of five hours in Singapore International Airport. The lion cubs at the time of their arrival were of 6 months of age.

Transvaal lion (*Panthera leo krugeri*), also known as the Southeast African Lion, is a subspecies of the Lion that is found in southern Africa, including Kruger National Park and the Kalahari Region. It is named after the Transvaal region in South Africa.

The male has usually a well developed mane. Males are around 2.6–3.20 metres long including the tail. The females are 2.35–2.75 metres. The weight of males is generally 150–250 kg, while the females are 110–182 kg. They have a shoulder height of 0.92–1.23 metres. They eat wildbeest, zebras, Cape buffalo, warthogs, and occasionally baby giraffes if their normal prey is scarce. Leucism occurs in this type of lion, but is quite rare. There are more than 2000 lions in the well protected Kruger National Park. In addition about 100 lions are registered under the name *P. l. krugeri* by the International Species Information System. These animals are derived from animals captured in South Africa.

After a 30 day quarantine period at the zoo, the lions were released in their open exhibit. Soon after their release in open enclosure, the animals started

to explore their territory and the immediate wilderness of the enclosure. Being inquisitive and playful, these cubs had taken to the fascination of bamboo clamps and crevices inside the open enclosure and would be exploring these places throughout the day. All the five were named as Edd (M), Jumbo (M), Joya(F), Saliya(F) and Kimu(F).

November, 2012

On 29 of November, 2012 during the daytime a cobra ventured inside the open enclosure of the lions. Immediately the cubs pounced on the cobra for a treat. However, the cobra gave them a slip and entered into a rock crevice. But the lion cubs did not give up and forced the snake to come out of the crevice. Once it was outside, three of them (Joya, Saliya and Kimu) caught it by its head and tail and started tugging. Their male partners Edd and Jumbo kept a distance and watched the activity. As a result of playing with the cobra all the three cubs were bitten seriously and received dollops of poison. This incident was happening in front of the keepers and inspite of their best efforts they couldn't discourage the cubs from leaving the snake. However, after prolonged efforts the cubs were taken inside their feeding cell and each cub was one by one restrained in a squeeze cage and administered with Inj. Avil – 10ml IM, Inj Vinlife* (Antisnake polyvalent) – 10ml slow IV along with 100ml normal saline, Inj Dexona – 1ml IM, Inj Fortivir – 2ml IM and Inj Teatavac – 0.5ml IM.

Round the clock close vigil was put in place to observe the cubs for behavioural changes. Two of the cubs (Kimu and Saliya) recovered by late night and also ate their share of meat. The third cub Joya which had taken in most of the poison was again injected with a fresh dose of anti venom, Inj Avil – 5ml IM, Inj Vetcel – 2ml IM, Inj Maxxtol – 3ml IM, Inf RL – 500 ml IV, Inj Megludyne – 2ml IV. She finally recovered on 1 December, 2012. However, by this time she also developed blisters in her entire body and it really posed a big challenge to the entire zoo veterinary team for treatment. It took about three more months by the time the lion cub recovered fully.

June, 2013

14 June, 2013 1200 Noon- A cobra again ventured into the lion exhibit and was immediately spotted by Saliya. She pounced on the snake and caught it by its head. Immediately, Jumbo came into the scene and pulled the snake by its tail. In their tug of war, the snake was torn into two halves. Though Kimu also tried to participate in the tug of war she was shoved away by Jumbo. The cobra before dying injected venom into Saliya and Jumbo. As done previously, the cubs were immediately taken inside squeeze cage and administered with Inj. Avil – 10ml IM, Inj Vinlife* (Anti snake polyvalent) – 10ml slow IV along with 100ml normal saline, Inj Dexona – 1ml IM, Inj Fortivir – 2ml IM and Inj Teatavac – 0.5ml IM. Both of them survived and are back to their normal playful mood.

Precautions are therefore required to be taken before hand in keeping their enclosures and surroundings free of pest like rodents. Anti snake retardants should be applied regularly to keep away the reptiles out of bay. The veterinary team also has to be well equipped and trained to respond to such exigencies.



A swollen foot of Lioness after snake bite