

"This elephant is suffering..."

Mel Richardson, DVM

On January 4, 2006 I was asked by In Defense of Animals (IDA) as well as Friends of Toni to visit the National Zoo and meet with John Berry, the zoo's new director concerning the condition of Toni, their 40 year old Asian elephant (*Elephas maximus*). There has been some growing concern over Toni's debilitating condition and IDA wanted my professional opinion and evaluation of her present physical state. I was chosen because of my thirty-six years experience with elephants and other animals, twenty-three years of which I have been a veterinarian, working in zoos, wildlife, and with domestic animals. IDA and Friends of Toni are asking the zoo to send Toni to The Elephant Sanctuary (TES) in Hohenwald, TN which I visited on January 3rd en route to Washington, D.C.

When I saw Toni on January 4th, 2006, I was appalled. I have never seen an elephant in such a debilitated condition. Toni is an elephant at least 2000 pounds underweight with an almost contorted posture. She moved carefully placing each foot with deliberation and consideration as to its position. Trying not to put much weight on each step...as if walking on eggs! All the while she was leaning back onto her rear quarters, obviously keeping weight off of her front legs. Her spine looked curved and her pelvis was twisted. The fact that I could see her spine, shoulder blades, and hip bones was beyond belief. I had expected her to be in poor shape; but this was more than I could have ever imagined.

After visiting Toni at her exhibit we, Joyce Poole, PHD and Petter Granli (both with Amboseli Elephant Research Project), Suzanne Roy (In Defense of Animals), Amy Mayers (Friends of Toni) and I met with John Berry, the director of the National Zoo. We all expressed our concern for Toni's condition. I told Mr. Berry that I believed Toni was suffering and if I were his veterinarian I would be discussing euthanasia with him to end her pain. We discussed the option of sending Toni to The Elephant Sanctuary (TES). I expressed my feeling that Toni may not be able to survive the move to Tennessee and the Sanctuary; but that Carol Buckley of TES would be the better judge of that due to her experience moving debilitated elephants. And if Carol felt after evaluating Toni that she could be moved, then I would support it. Mr. Berry assured all of us that Toni was receiving the best care possible at the National Zoo. He explained her condition was due to her old leg injury at Scranton Zoo and her weight loss was due to her being just a

picky eater. In fact when I watched Toni in her exhibit she appeared to relish her bamboo, which was obviously placed in the yard to draw her out. He explained that the other elephants were thriving in the exhibit. I informed Mr. Berry that Ambika was also being treated with ibuprofen for arthritis according to the medical records. He was unaware of that. We ended the meeting with Mr. Berry assuring us that Toni was receiving excellent care. He articulated The National Zoo's commitment to continue to exhibit and breed elephants.

Mr. Berry's statement that Toni's condition is due entirely to her left forelimb injury at Scranton is on shaky ground. He even stated that her twisted stance was in compensation for this injury. Elephants in the wild have sustained fractured legs and even ankylosed carpal joints, like Toni. They have been seen to recuperate and go on to live almost normal elephant lives, albeit with a limp. Had Toni had access to an adequate environment with enough space to roam and a natural substrate, I am certain that she could have better dealt with her injury and would not be in such a condition as today. Toni's exhibit only allowed for exacerbation of her injury. Lack of exercise caused muscle atrophy, removing the muscular support needed to sustain healthy joints and standing on concrete increased the trauma to joint surfaces initiating degenerative joint disease while walking on sand literally rubbed down her pads, thinning her soles and increasing her pain. We will never know for sure; but I believe if Toni had been sent to a sanctuary when she left Scranton, she would not be suffering today.

In December 2005 I was given access to Toni's medical records, as well as the records of the other elephants at the National Zoo. So I was painfully aware of her medical problems: her chronic arthritis in her left forelimb caused by an old injury at the Scranton Zoo in Pennsylvania; her chronic arthritis in her right forelimb caused by shifting her weight onto the 'good' leg attempting to alleviate the pain in the left limb; chronic infected tusk sulcus (socket); chronic weight loss and inability to regain weight; hematuria (blood in urine) due to renal papillary necrosis or pyelonephritis (kidney infection). The records run from January 2000 until early November 2005. There is a trend of a chronically declining health picture. 10 Dec 2000 she was noted to be thin and body weight of 5850 pounds, "her lowest weight since 1996." Her last weight that I have was on 7 Nov 2005 and was noted to be 5740.4 pounds. The average weight for an Asian elephant cow is 7000 to 8000 pounds.

Prior to Toni's episode of hematuria in March of 2001 she had been on ibuprofen daily since 1997. One would assume for arthritis pain in the left or right or both front legs. The records are not clear. What is clear is the use of ibuprofen*. In fact ibuprofen is not commonly used in domestic animals at all due to its toxic effects. From examining the records I am convinced the hematuria seen and treated as a kidney infection was in fact ibuprofen toxicity. The animal health staff must have strongly suspected this at the time because they immediately discontinued the ibuprofen when blood was found in her urine.

July 3, 2005 the records note she was lame and leaning on the bars. She was reluctant to go down in sternal position (on her chest and belly with legs tucked). Vet recorded "Spoke with curator TB at home on telephone and discussed options, including starting NSAID with possible risk of renal damage." So why would the veterinary staff intentionally place an animal on a medication which may cause kidney failure? Because she was and is in a great deal of pain! As early as July she was seen standing in a posture attempting to alleviate her weight from her front legs. The records indicate this very stance: weight shifted to her rear end, front legs extended forward resting on her front heels. And I have seen pictures taken of her in September which show her standing with her weight shifted to the rear legs as well.

The First North American Conference on Elephant Foot Care and Pathology was held in Beaverton, Oregon, March, 1998. ***The Elephant's Foot, Prevention and Care of Foot Conditions in Captive Asian and African Elephants***, (Iowa State University Press, 2001.) resulted from that meeting and states in the introduction: "Foot problems are seen in 50 percent of captive Asian and African elephants at some time in their lives. ...may result in serious disability and death." They go on to state "There is a general consensus that lack of exercise, long hours standing on hard substrates, and contamination resulting from standing in their own excreta are major contributors to elephant foot problems. All contributors (to the meeting) also agree that prevention of foot problems is preferable to treatment." It is important to keep in mind that elephant "foot problems" over time will lead to debilitating arthritis and degenerative joint disease, and vice versa.

Whenever possible we as veterinarians are trained to prevent pain and suffering, not just treat it. Why are the veterinarians at the National Zoo not preventing the painful degenerative arthritis in their elephants like Toni and Ambika?? They

cannot!! Because the cause of the crippling degenerative joint disease is the exhibit itself: the concrete; the packed unyielding abrasive substrate inside and outside; the lack of exercise and normal use of the elephants feet and limbs – climbing, digging, walking, wading into streams, kicking logs, and foraging. Some zoo professionals gone on record saying elephants are basically lazy and if their food is placed in front of them they will not exercise. Sounds like the American Public, myself included. Nevertheless they evolved to travel miles each day on uneven natural substrate using their feet to find and apprehend food. To keep them healthy we must provide that opportunity as well. The zoo exhibit itself is the cause of the Degenerative Joint Disease. **The zoo exhibit itself is killing her.** And treating these elephants like Toni and Ambika with long term, high dose NSAID, in an effort to control their pain, is contributing to their agony not alleviating it.

So my professional assessment of Toni is that she is suffering. If The Elephant Sanctuary will accept her, then I believe she should be moved there as soon as possible. And if The National Zoo cannot provide appropriate habitat for their other elephants, then they should not have elephants at all.

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* Ibuprofen is a Nonsteroidal Anti-inflammatory Drug or NSAID. So if zoo and circus veterinarians are using the drug ibuprofen, where are they getting their dosages? Are they extrapolating from man, or more likely from horses? Traditionally we have treated elephants as large horses. An example of an NSAID commonly used in horses is phenylbutazone. The Merck Veterinary Manual states that the plasma levels needed for efficacy of phenylbutazone in man is 100 – 150 µg/mL, but the horse requires only 10 - 30 µg/mL. Therefore you cannot extrapolate the dosage for horses or elephants from man with confidence! Ibuprofen, the NSAID used to treat Toni, is not used nor recommended for horses. The Merck Veterinary Manual goes on to state that “high doses of NSAID produce renal tubular nephritis. Renal papillary necrosis has been described in horses that received standard clinical doses of NSAID.”