

Letter to the Editor

Can GnRH vaccine be used on captive elephants to postpone musth?

Dear Sir,

Four client owned, captive adult male elephants were given injections of a GnRH (gonadotropin releasing hormone vaccine; 800µg per dose). The hormone administrations were planned so that the last injection was administered approximately one month before the anticipated date of musth. Two semi wild male elephants from the Pinnawela elephant orphanage also received the vaccine. Venous blood was collected immediately before the vaccine injection for assay of testosterone.

Of the client owned elephants, one received all 3 doses and demonstrated a 3-month delay in the onset of musth together with a marked reduction in aggressiveness. Two elephants that received 2 injections showed signs of musth around the expected time, however, there was a reduction in the aggression. Conversely, one animal that received one injection came into musth, two months prior to the expected date and had a prolonged period of musth.

In the semi wild elephants, one had apparently been in continuous musth for almost 2 years when the first injection was administered and this animal came out of musth immediately after the injection and had minimal

aggression. However, musth reappeared approximately 5 months after the second dose. The other semi wild elephant had a history of irregular musth twice a year but responded well to the vaccine by demonstrating delayed commencement of musth by approximately 8 months after the second injection. Testosterone levels were reduced in all four client owned elephants and a semi wild animal while the other semi wild elephant showed no changes in the testosterone levels.

These preliminary findings indicate a postponement of musth, albeit for short periods following GnRH vaccine in captive and semi wild elephants. It also appears that musth-related aggression in the male elephants is complex and possibly multifactorial and is not solely reliant on testosterone. Further studies with a large number of animals to include captive, semi wild and perhaps wild elephants will help to confirm the findings reported herein. Client compliance was a major impediment in the conduct of this study.

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