
TRIALS WITH METOCLOPROMIDE FOR PROMOTING MILK SECRETION IN A LIONESS

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Lioness 'Sheroo' at the Tata Steel Zoological Park, Jamshedpur gave birth to three lion cubs on 19th May, 1994. All the cubs were normal and the birth weight of the cubs were 1200 g., 1000 g. and 900 g. respectively. The lioness took care of the cubs by allowing them to suckle for 15 days. Thereafter, the mother's milk was found to be insufficient. The growth rate of the cubs became poor and the cubs had to be hand reared. The lioness came into oestrus and started neglecting the cubs. All the three cubs were put on artificial feeding with Lactogen-1¹. Two of the cubs, both female, Chandni and Tara accepted Lactogen very well (50 ml. each at 4 hr. interval in a day), through feeding bottle, but Suraj, the male cub did not accept any of the weaning foods and succumbed to death on 30.6.94. At the age of 45 days Egg Farex² 50 g. each once daily was introduced and frequency of feeding Lactogen-1 (60 ml each feed) was reduced to every 5 hours. At the age of 60 days both the cubs were initiated to consume finely minced chicken meat and chicken soup once daily. Growth rate was monitored and the weight of the cubs was recorded once a week. At the age of 90 days boiled and minced mutton was introduced and given twice a day which they accepted very well.

On 7th October '94, the lioness again gave birth to two cubs of normal size and weight. The milk secretion of the mother was very poor and none of the cubs of this litter accepted hand rearing, consequently, both the cubs died.

On 4th April, 1995, Sheroo gave birth to three cubs once again all of normal size and weight.

To ensure that the cubs received adequate mother's milk, a trial was made to enhance the milk secretion of the lioness by administering Reglan³ (Metoclopramide) - two tabs of 10 mg each - twice daily for 25 days, followed by 3 tabs of 10 mg each twice daily for upto 90 days. The trial results were very encouraging. The milk secretion of the lioness increased. The lion cubs thrived entirely on the mother's milk and grew well.

It may be stated that the authors consulted a few medical practitioners who stated that they use Metoclopramide for the purpose of increasing the availability of 'mother's milk', to the infants, over and above, its common use as an anti-emetic.

The authors are not aware of anyone having successfully used Metoclopramide in domestic animals or in zoo animals for the said purpose of improving milk secretion even though the drug is very commonly used as an anti-emetic in domestic animals.

Metoclopramide, a dopamine antagonist drug, which is vastly used to prevent vomiting associated with gastro-intestinal disorders, is reported to have a stimulating effect as to cause prolactin release. Knowledge of this fact gained from the medical practitioners and subsequently from books was made use of in this trial. This was our first trial of the drug in

an animal and that too in a lioness to improve the secretion of dam's milk.

The trial was a success and we could save all the three lion cubs as they received dam's milk in sufficient quantities.

As observed in this trial, the milk secretion increased to an extent as to suffice the requirement of the three cubs in the litter upto 90 days after administration of Metoclopramide to the lioness obviously due to the action of Metoclopramide in stimulating prolactin release, prolactin, being the main hormone responsible for milk secretion, in turn, promoted and enhanced milk secretion.

Reference

Laurence, D.R. and Bennet, R.N., 1992. Gastro-intestinal system. adverse reaction to metoclopramide, In: *Bennet clinical pharmacology*

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¹ Infant powdered milk, Nestle India Ltd.

² Cereal based weaning food containing egg, Glaxo India Ltd.

³ Trade name of Metoclopramide