

Zuclopenthixol decanoate toxicity in an 8-month-old colt causing extrapyramidal neurological signs.

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Abstract

Zuclopenthixol decanoate is a dopamine antagonist licensed for human use to manage schizophrenia and paranoid psychosis. It is in the same drug class (thioxanthene) as fluphenazine decanoate, a drug with reported use in horses to provide long-acting sedation. This case study describes severe extrapyramidal signs seen in a thoroughbred colt after zuclopenthixol decanoate administration. The colt was presented to a referral hospital for an unusual manifestation of colic signs. On admission, the colt began to show clear extrapyramidal neurological signs. Initial suspicion was of fluphenazine decanoate toxicity, therefore treatment as reported in the literature for this syndrome was commenced. The limited available literature regarding treatment options includes use of intravenous formulations of diphenhydramine hydrochloride and benztropine mesylate, which were unavailable without an import licence in the UK at the time of publication. The closest alternative option, oral diphenhydramine (Nytol) 1mg/kg was administered alongside intravenous atropine (0.01mg/kg) and pergolide (2mcg/kg/q 24 hours). Improvements in the colt's demeanour and neurological status was noted within 24 hours. Ongoing supportive treatment was continued and slowly tapered in line with clinical improvement. The colt was hospitalised for a total of 26 days and at time of discharge was clinically normal. Follow-up communication 3 months after discharge confirmed that the colt had remained neurologically normal. Crucially, toxicology testing submitted to Cornell University was negative for common toxins, including fluphenazine decanoate. Specific secondary testing was performed after suspicion of the use of zuclopenthixol decanoate was raised, and this was positive for this compound. Routine drug testing would therefore not identify the use of this behaviour modifying drug. Clinical data regarding the use of zuclopenthixol in animals is limited to its use in translocation of wildlife to relieve stress and aid acclimatisation. To our knowledge there is no available literature describing administration of zuclopenthixol decanoate in equine patients.

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