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## Chlorpromazine: Evidence for Analgesia

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**Introduction:** Phenothiazines and benzodiazepines are widely used in clinical practice. The popularity of these drugs is the result of a combination of their pharmacologic actions, and the demand for agents of these types by both physicians and patients. To date lots of studies have been performed about the ataractic and sedative-hypnotic effects of these agents. The present study aimed at investigating the effects of two selected substances of these groups, i.e., chlorpromazine (CPM) and diazepam (DZP) on some behavioral aspects in mice. **Materials & Methods:** Twelve adult male mice were divided into three groups which received either saline solution (control), CPM (1.2 mg/kg), or DZP (1.2 mg/kg) intra-peritoneally. Thirty minutes later, the following parameters were studied: pain sensation, catalepsy, grooming behavior, resistance on inclined surface, floating in water, locomotor activity, and behavior on elevated plus maze (EPM). Data were presented as means ± SEM and the means of three groups were compared by using one-way analysis of variance. Where permitted, the mean of an individual group was compared with that of the controls by Bonferroni's t test. A P value smaller than 0.05 was considered statistically significant. **Results:** CPM-treated animals represented an increased latency to show a nociceptive response in the hot-plate test in comparison to the control group ($P < 0.05$). Also there was a remarkable decrease in the CPM-treated animals in the times of crossing of lines during 5 minutes versus the DZP-treated group in locomotor activity test ($P < 0.05$). Other findings were not statistically significant. **Conclusion:** This study clearly showed that a single administration of CPM produces bradykinesia, and also it induces a remarkable analgesic effect in the animal model used. The latter observation has not been obviously mentioned in literature, so complementary surveys are suggested to be performed.

**Keywords:** Chlorpromazine, Diazepam, Mouse, Behavior, Bradykinesia, Analgesia

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## Evaluation of pathological effects of cyproterone acetate in the musculoskeletal system in the rat

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Cyproterone acetate, a widely used synthetic progestagen with antiandrogenic activity. It suppresses the action of testosterone. Its main indications are prostate cancer, benign prostate hyperplasia, priapism,hypersexuality or other condition in with androgen.In the present study the pathological effect of cyproteron was assessed using 42 male and female wistar rats weightings 140-180g were used.Animals were housed under standardized condition of light and temperature. Rats were randomly divided in 4 groups of male and female. The 4 grouped served as normal control intraperitoneal exposure to cyproterone acetate was accomplished by giving 8mg/kg for group 1, 9 mg/kg to group 2 and 10 mg/kg for group 3 for 3 days.After two weeks the result showed that absolute muscle mass of control males and females were superior to those of cyproterone exposed rats. Although the muscle weights differ significantly between male and female in control group. The cyproterone both inhibited the production and promoted the apoptosis of osteoblast , osteocyte, which resulted in apoptosis reduction of bone turnover and a decline in bone formation and trabecute width.

**Keywords:** Cyproterone acetate,musculoskeletal system,antiandrogenic effects