16940 Competitive problems in the drug industry

It is worthy of note that the initial new drug application for Darvon, submitted in March, 1957, now almost twenty-two years ago, included studies of cardiac function in anesthetized dogs given continuous intravenous infusions of propoxyphene until death. No significant ECG changes were observed except for minor changes just prior to the death of the animals. It was concluded that propoxyphene had no deleterious cardiac effects.

Additional cardiac studies were reported in the NDAs for Darvocet^R and Darvon-N^R in 1968. In the former, anesthetized cats were given intravenous propoxyphene, 5 mg/kg, and slight prolongation of the PR interval was noted. A dose of 0.5 mg/kg had no effect on the ECG. The NDA for Darvon-N notes that no significant effects on cardiac rhythm were observed when anesthetized cats were given 5 mg/kg propoxyphene intravenously. Also reported is a study of the hydrochloride and napsylate salts administered to conscious dogs in doses of 40 mg/kg orally (by gavage). No effects on cardiac rhythm were noted.

A study in dogs recently submitted for publication by Lilly pharmacologists is worthy of brief review. The metabolism of propoxyphene is quite similar in the dog and man, and results of the investigation are reassuring for man.