***Pharmacology***

**Xylazine HCl** Injection (xylazine), a non-narcotic compound, is a sedative and analgesic as well as muscle relaxant. Its sedative and analgesic activity is related to central nervous system depression. Its muscle relaxant effect is based on inhibition of the intraneural transmission of impulses in the central nervous system. The principal pharmacological activities develop within 10 to 15 minutes after intramuscular injection in horses and *Cervidae*, and within 3 to 5 minutes following intravenous administration in horses.

A sleeplike state, the depth of which is dose-dependent, is usually maintained for 1 to 2 hours, while analgesia lasts from 15 to 30 minutes. The centrally-acting muscle relaxant effect causes relaxation of the skeletal musculature, complementing sedation and analgesia.

In horses and *Cervidae* under the influence of Xylazine HCl Injection (xylazine), the respiratory rate is reduced as in natural sleep. Following treatment with Xylazine HCl Injection (xylazine), the heart rate is decreased and a transient change in the conductivity of the cardiac muscle may occur, as evidenced by a partial atrioventricular block. This resembles the atrioventricular block often observed in normal horses.1,2,3,4 Partial A-V block may occasionally occur following intramuscular injection of Xylazine HCl Injection (xylazine). When given intravenously in horses, the incidence of partial A-V block is higher. Intravenous administration causes a transient rise in blood pressure in horses, followed by a slight decrease.

Xylazine HCl Injection (xylazine) has no effect on blood clotting time or other hematologic parameters.

Source: http://www.drugs.com/vet/xylazine-hcl-injection.html