

In Vitro Effect of Iron Salts on Peristaltic Activity of Goat Ureter

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Abstract

Objective: To study in vitro effect of iron salts on peristaltic activity of goat ureter and to find out mechanism action of iron salts. **Material and Method:** Ureters from freshly slaughtered goats (*Capra aegagous hircus*) were collected from a local slaughter house. The effect of iron salts on peristaltic activity of goat ureter was studied by Trendelenberg's method. Parameter studied was the extent of inhibition of contractions of goat ureter. Feldberg and Lin method was used to find out mechanism action of iron salts. **Result:** All iron salts produced depressant action on peristaltic activity in goat ureter. Amongst the iron salts used in this study, ferrous sulphate (68%) was found to be the most potent antispasmodic followed by ferrous ammonium sulphate (57.5%), ferrous fumarate (55.8%), iron dextran complex (55.1%) and iron sorbitol citric acid complex (53.4%). **Conclusion:** Iron salts possess antispasmodic properties. Iron salts may follow the mechanism of inhibiting the peristaltic activity apart from their astringent action as well as alteration of intestinal flora in causing constipation. Based on Feldberg and Lin method, it was observed that iron salts neither inhibit the action of acetylcholine nor that of nicotine on smooth muscle of goat ureter suggesting its direct action on smooth muscle of goat ureter.