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Vomiting is a common symptom that every human-being experiences during his lifetime at one time or the other. A variety of causes and diseases give rise to nausea and vomiting. Phenothiazines and antihistaminics are the commonly employed antiemetic drugs. These drugs also produce a large number of undesirable effects including central depression, extrapyramidal syndrome, hepatotoxicity and peripheral autonomic disturbances. In quest of a new and safer antiemetic drug, metoclopramide was discovered. Experimental and clinical evidences indicate that metoclopramide is a potent antiemetic agent with least systematic side effects. This drug has recently been introduced clinically to treat vomiting and other dyspeptic syndromes (Schulze-Delrieu, 1979).

In a well planned study, metoclopramide (2-methoxy-5-chloro-procainamide) was found to possess antiemetic effect with complete absence of central nervous system depression in effective doses (Justin et al., 1964 a and 1965 b), though the latter findings have been doubted by subsequent workers. Following this discovery, a number of workers studied this drug experimentally and clinically to establish its spectrum of therapeutic efficacy, mode of action and side effects. Multiple factors
are known to be responsible for antiemetic action of metoclopramide like central blockade of dopaminergic receptors (Pinder et al., 1976 and Peringer et al., 1975), peripheral augmentation of cholinergic responses in intestinal smooth muscle (Justin-Essencon and Laville, 1964), blockade of tryptaminergic mechanisms and direct myogenic action. Various workers have reported that metoclopramide produces several side effects like depression, dystonic reactions, diarrhoea, constipation, abdominal cramps, urticarial rashes, cropharyngeal and periumbilical oedema, cardiac arrhythmias, hypertensive crisis in phaeochromocytoma, hypotension during anaesthesia and endocrinal disturbances (Robinson, 1973).

Furthermore, metoclopramide has been claimed to have multiple uses like diagnostic radiology, duodenal intubation, treatment of vomiting, suppression of gastrooesophageal reflux and chronic gastric stasis (Schulze-Delrieu, 1979). Still the clinical status of metoclopramide in the treatment of various gastrointestinal disorders remain undefined.

The perusal of literature shows that in human beings, metoclopramide affects blood pressure in either ways and produces cardiac arrhythmias (Robinson, 1973). However, cardiovascular, biochemical and haematological effects of metoclopramide in experimental animals as well
as in human-beings are not well documented and seems to have not been adequately investigated.

This study with metoclopramide was conducted with following aims in view:-

(1) To investigate neuropharmacological profile.

(2) To study cardiovascular effects in frogs, albino rats as well as in human volunteers.

(3) Biochemical effects on blood sugar, serum cholesterol and serum uric acid levels in albino rabbits and human volunteers.

(4) Acute and chronic effects on haematological parameters.

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