A comparative Study of Some Pharmacological Effects of Tianeptine Versus Amitriptyline

Mahmod Hamdy Mohamed Aly, Mohamed El-Metwally Mansour, Ahmed Abo El-Maaty El-Gazzer, Amany Nassr Abdel Hady

Dept. of Pharmacology, Benha Faculty of Medicine, Zagazig University, Egypt

Abstract

The present study was carried out to screen the anticholinergic and cardiovascular side effects of tianeptine and to evaluate its analgesic effects versus amitriptyline.

Data obtained in the present work pointed out that gradually increasing doses of tianeptine induced non significant inhibition of rhythmic contraction of rabbit jejunum (P > 0.05). While, gradually increasing doses of amitriptyline induced significant inhibition of rhythmic contraction of isolated rabbit jejunum (P < 0.05). Also tianeptin had less inhibitory effect on isolated rabbit intestine than amitriptyline in the same doses. Moreover, the inhibitory effect of tianeptine and amitriptyline were not affected by both alpha and beta adrenoreceptor blockers (phenotolamine and propranolol respectively) or the dopaminergic receptor blocker (metoclopramide). In addition, tianeptine produced non significant decrease in A. Ch induced intestinal contraction. While, amitriptyline significantly attenuated the A.Ch induced contraction of isolated rabbit intestine.

Regarding the effect on cardiovascular system, the result of the present work showed that, gradually increasing doses of both tianeptine and amitriptaline produced non significant decrease in the contractility of isolated rabbit heart (P > 0.05).

Gradually increasing doses of tianeptine produced non significant decrease in norepinephrine induced contraction on isolated rabbit aortic