

## **P-1081 - THE EFFECTS OF METOPROLOL AND DILTIAZEM IN PROLONGED QTc INTERVAL CAUSED BY ZIPRASIDONE INJECTION IN RATS**

O.Erbas

Physiology, Ege University Faculty of Medicine, Izmir, Turkey

**Introduction:** Antipsychotic drugs cause prolongement in QTc interval and may cause sudden cardiac death in patients. The purpose of this study is to reveal the effects of metoprolol and diltiazem on drug induced (ziprasidone) prolonged QTc (QT correct) interval.

**Materials and methods:** In this study 18 Sprague-Dawley adult male rats is used. Before application of anti-psychotic, under anesthesia, ECG is taken in derivation (D) I and normal QTc interval was determined. For calculate QTc Bazett's formula was used.

Rats were divided into 3 groups (n=6). For first group 3 mg/kg ziprasidone and saline, for second group 3 mg/kg ziprasidone and 1 mg/kg metoprolol, for the third group 3 mg/kg ziprasidone and 2 mg/kg diltiazem is applied intraperitoneally.

2 hours later after application of drugs, under anesthesia, QTc was calculated by taking ECG in derivation I.

**Results:** In the first group rats which is taken ziprasidone and saline QTc ( $0.161 \pm 0.01$  s) is significantly ( $p < 0.05$ ) prolonged than rats before application QTc ( $0.125 \pm 0.009$  s)

In the second group rats which is taken ziprasidone and metoprolol QTc ( $0.123 \pm 0.009$  s) is significantly ( $p < 0.05$ ) shorten than rats which is taken ziprasidone and saline (First group)

QTc ( $0.161 \pm 0.01$  s) In the third group rats which is taken ziprasidone and diltiazem QTc interval ( $0.125 \pm 0.004$  s) is significantly ( $p < 0.05$ ) shorten than rats which is taken ziprasidone and saline (First group) QTc ( $0.16 \pm 0.01$  s).

**Discussion :** High dose ziprasidone make prolongement in QTc interval. Metoprolol and diltiazem prevent ziprasidone induced elongation in QTc interval. The prophylactic use of this drugs may be an hope by reducing the ventricular arrhythmias and sudden cardiac death in patients taking antipsychotics.