

ID 947

Does Carbamazepine affect the QT interval? ..

Type: Abstract with Bursary application

Topic: Medical therapy and pharmacology / Clinical pharmacology and therapeutics

Authors: T. Yadee, K. Unnwongse; Bangkok/THAILAND

Purpose

Pathologic cardiac repolarization may occur during seizures and has been linked to SUDEP. In this retrospective case control study, we investigated if Carbamazepine affects the QTc interval.

Method

Nineteen patients with epilepsy on Carbamazepine were matched for age and sex to 19 patients on Carbamazepine for neuralgia or mood disorders and 19 patients admitted for elective surgeries who were not taking Carbamazepine. None of the patients had concomitant cardiovascular disease or were taking medications known to affect the QTc interval. QTc intervals and Carbamazepine doses and blood levels, were analyzed using one-way ANOVA.

Result

Two out of 19 patients (11%) in the epilepsy group but none in other groups had QTc prolongation (>450 milliseconds). The mean QTc interval was longer in patients taking Carbamazepine for epilepsy, compared to both patients taking Carbamazepine for other reasons and patients without epilepsy not taking Carbamazepine (417±26 vs 400±17 vs 403±16 milliseconds) (p=0.029). Mean dose and blood level of Carbamazepine in epilepsy and non-epilepsy groups did not differ (737±389vs 716±407 mg/d and 7.27±2.46vs 7.36±2.65 mg/dl) (p=0.87 and p=0.92).

Conclusion

Carbamazepine may lead to QTc prolongation in patients with epilepsy but not in other neurologic disorders. A longitudinal study comparing QTc intervals before and after treatment with Carbamazepine is required to confirm this finding.

เสนอโดยนางสาวกาญจนา อันวงศ์ นายแพทย์ชำนาญการพิเศษ สถาบันประสาทวิทยา

ในการประชุมวิชาการ 10th European Congress on Epileptology 2012

ซึ่งจัดขึ้นระหว่างวันที่ ๓๐ กันยายน ๒๕๕๕ ถึงวันที่ ๔ ตุลาคม ๒๕๕๕ ณ สหราชอาณาจักร