A simple and reliable method for simultaneous quantification of antiepileptic drugs in plasma using LC-MS/MS combined with direct injection column

**ABSTRACT**

A simple and reliable method for simultaneous quantification of AEDs in plasma was developed and optimized for therapeutic level monitoring of patients taking various AEDs daily. The method is being routinely used in out-patient TDM service of Inha University Hospital Clinical Trial Center, Incheon, South Korea.

**INTRODUCTION**

In this study, a new method was developed for TDM monitoring of patients taking various AEDs daily on a daily basis.

**MATERIALS AND METHODS**

**Quantitation**

A simple and reliable method for simultaneous quantification of antiepileptic drugs (AEDs) in human plasma was necessary for daily TDM monitoring of patients taking various AEDs daily. Patient plasma samples were collected in tubes containing 1mL of 10% w/v sodium fluoride and centrifuged at 3000 rpm for 15 minutes at 4°C.

**RESULTS**

The selected ion chromatograms (SIC) and multiple reaction monitoring (MRM) chromatograms were obtained for all analytes at the optimized conditions of the MS/MS system.

**CONCLUSIONS**

A simple and reliable method for simultaneous quantification of antiepileptic drugs (AEDs) in human plasma was developed and optimized for daily TDM monitoring of patients taking various AEDs daily on a daily basis.

**REFERENCES**

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