عنوان مقاله:

Antiepileptic drugs start and stop in liver and renal failure: comprehensive study

محل انتشار:

پانزدهمین کنگره بین المللی صرع ایران (سال: 1397)

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خلاصه مقاله:

Objectives: Symptomatic seizures or epilepsy may complicate the course of hepatic or renal disease. Or the epileptic patients may experience renal or liver disease. Thus the use of antiepileptic drugs in patients with renal or hepatic disease is common in clinical practice.Since the liver and kidney are the main organs involved in the elimination of most drugs,their dysfunction can have important effects on the disposition of antiepileptic drugs.Renal or hepatic disease can prolong the elimination of the parent drug or an active metabolite leading to accumulation and clinical toxicity. It can also affect the protein binding, distribution, and metabolism of a drug. The protein binding of anionic acidic drugs, such as phenytoin and valproate, can be reduced significantly by renal failure, causing difficulties in the interpretation of total serum concentrations commonly used in clinical practice. Dialysis can further modify the pharmacokinetic parameters or result in significant removal of the antiepileptic drugs. The use of antiepileptic drugs in the presence of hepatic or renal disease is complex and requires great familiarity with the pharmacokinetics of these agents. Closer follow-up of the patients and more frequent monitoring of serum concentrations are required to optimize clinical outcomes. Choosing the most appropriate antiepileptic drug in this setting represents a difficult challenge, as most medications are metabolized by the liver or secreted by kidneys. Newer antiepileptic drugs without, or with minimal,hepatic metabolism, such as levetiracetam, lacosamide, topiramate, gabapentin, and pregabalin should be used as first-line therapy. Medications undergoing extensive hepatic metabolism,such as valproic acid, phenytoin, and felbamate should be used as drugs of last resort. In special circumstances, as in patients affected by acute intermittent porphyria, exposure to most antiepileptic drugs could precipitate attacks. In this clinical scenario, bromides, levetiracetam, gabapentin, and vigabatrin constitute safe choices. For the treatment of status epilepticus, levetiracetam and lacosamide, available in intravenous preparations, are good second-line therapies after benzodiazepines fail to control seizures. Hepatotoxicity is also a rare and unexpected side effect of some antiepileptic drugs. Drugs such as valproic acid, phenytoin, and felbamate, have a well-recognized association with liver toxicity.Other antiepileptic drugs, including phenobarbital, benzodiazepines, ethosuximide,and the newer generations ... of antiepileptic drugs, have only rarely bee

کلمات کلیدی: