GASTROINTESTINAL DRUGS USE AND SPONTANEOUS BACTERIAL PERITONITIS (SBP) EVENTS IN CIRRHOTIC PATIENT IN ADI HUSADA UNDAAN WETAN SURABAYA HOSPITAL

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Background:
Cirrhosis patient need special attention, due to the lack of inappropriate medication could be fatal incidents and lead to death, so proper medication can improve the quality of life and help live longer. Gastrointestinal drugs include antacids, H2 blockers, proton pump inhibitors, anti-emetic, and 5-HT3 receptor antagonists. The drugs are often used to reduce the symptoms of gastrointestinal disorders in cirrhotic patients.
Objective:
To determine the profile of the use of gastrointestinal medications on the incidence of spontaneous bacterial peritonitis (SBP).
Method:
The design was retrospective, the data extracted from the medical records of patients during the month of January 2010-December 2010.
Results:
We analized SBP event in 48 patients (aged ≥ 23 years) who used gastrointestinal drugs at the hospital. The most widely gastrointestinal drug classes was proton pump inhibitor (PPI) (19 cases). Then, it was found 7 patients with SBP events after the treatment, involving PPI were 4 cases. SBP incident also occurred after administration of drug combinations 5HT3 receptor antagonist and H2-blockers (1 case) and combination of PPI and antiemetic (1 case), and combination PPI and antacids SBP (1 case). Outcomes related clinical of DRP events most often occur SBP is the emergence of new diseases.
Coclusion:
Further studies are needed on the relationship of gastrointestinal drugs used with incidence of SBP in cirrhosis patient.

Key words: cirrhotic, gastrointestinal drugs, spontaneous bacterial peritonitis (SBP)

Introduction

Cirrhosis hepatic is a chronic liver disease characterized by inflammation of connective tissue accompanied by nodules and fibrosis, which can lead to cell death. It's resulting in suppression of blood vessels and cause ireversible changes, which can lead to chronic liver failure and death (Sease *et al.*, 2008; Kenward and Tan, 2003; Sherlock and Dooley, 1997).

Gastrointestinal drugs are often given to patients with liver cirrhosis, aims to prevent complications in patients with peptic or bleeding gastric varices (Lodato et al., 2008). Cirrhosis hepatic with peptic ulcers can increase the prevalence of peptic ulcer and gastric risk. Gastric bleeding medications, such as antacids, cimetidine, ranitidine, PPI/proton pump inhibitors, metoclopramide, and ondansetron, effective in reducing stomach acid, but in specific patients such as cirrhosis hepatic patients may lead to a reduction presystemic metabolism (Young et al., 1982).

However, use of these drugs can lead to adverse clinical outcomes. In one study of patients with liver cirrhosis omeprazole therapy during hospitalization, 53% gave an indication of SBP (spontaneous bacterial peritonitis) (Bajaj et al., 2009). Spontaneous bacterial peritonitis (SBP) is an infection caused by ascites fluid that occurs in intra-abdominal (Alaniz and Regal, 2009). In some patients with cirrhosis, signs and symptoms that may occur are fever, abdominal pain, and hepatic encephalopathy. This is due to the antibacterial activity of ascites fluid is proportional to the ascites fluid protein (Sease et al., 2008).

Treatment in patients with cirrhosis hepatic are in need of special attention, due to the lack of proper drug administration would be fatal to the patient may result in death, then the proper treatment is needed in patients with cirrhosis hepatic (Grattagliano et al., 2011), such as gastrointestinal treatment in cirrhosis hepatic who turns can also lead to death (Young et al., 1982). Therefore research in the analysis of the use of gastrointestinal medications in patients with cirrhosis hepatic, and observe the resulting clinical outcomes associated spontanius bacterial peritonitis (SBP) incidence.

Methods

The study design was a retrospective non-experimental. The population were all hospitalized cirrhosis hepatic patient at the Hospital Adi Husada Undaan Wetan in January 2010 until December 2010, and research sample were cirrhosis hepatic patients who were included in the study population qualified inclusion and exclusion. The inclusion criteria used were adult cirrhosis hepatic patients aged ≥ 23 years who received drug therapy of gastrointestinal (Santrock, 2002), whereas exclusion criteria were patients possess another liver disease and disruption of other infections that have been suffered by the sample time of admission, as it can affect changes in drug therapy and outcomes will be generated.

Results and Discussion

Total population in this study was 54 people and of that number 48 people who met the inclusion criteria and used as a sample study, because only 48 people who get gastrointestinal therapy. Of the 54 patients (33 men (69%) and 15 women (31%)), with the highest age is above 60 years (62%).

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PPIs were used in this study were 39 cases. PPI serve as the primary choice in the selection of gastrointestinal drugs, with the aim of preventing complications of gastric variceal bleeding gastropatik or the use of a variety of drugs (multidrug treatment). In preventing and treating complications of the esophagus, in addition to the appeal or sclerotherapy of esophageal varices, there is little evidence for the role of PPI as a protector agent. But PPI is metabolized in the liver, so the PPI dose should be reduced in patients with liver cirrhosis (Lodato et al., 2008). In this study, a total of 39 patients using PPIs, it was found that 7 patients with SPB after treatment involving PPI. In a

retrospective case-control study conducted by Andersson et al. (1993), among 1,309 patients treated at a single tertiary care center over a 4-year period, the researchers identified 65 cases (patients with cirrhosis and SBP) and 65 controls (patients with cirrhosis and ascites but there is no evidence SBP) who received therapy PPI before having SBP. At a pharmacokinetic study of omeprazole and its metabolites following a single dose, studied in 8 patients with liver cirrhosis. It is concluded that, as the hepatic clearance of omeprazole was substantially reduced in the patients, the dose of omeprazole required for a certain level of acid suppression was lower in patients with liver cirrhosis (Andersson et al., 1993). Omeprazole may reduce levels of gastric acid in patients with liver cirrhosis, but the successful use of omeprazole in patients with liver cirrhosis are very few (Lodato et al., 2008).

From these studies, it is known that gastrointestinal drugs aimed at reducing the symptoms of gastric disorders in liver cirrhosis patients, but also may lead to undesirable clinical outcomes that can even increase morbidity and mortality.

Pharmaceutical care may be an appropriate strategy to prevent and control morbidity and mortality. So that pharmacists need to carry out its role in the pharmaceutical care to assess the influence of gastrointestinal drugs in the treatment of patients, and the expected cooperation among health workers (doctors, nurses, and pharmacists) can reduce the incidence of unwanted and ensure the safety of patients (Young et al., 1982; Franklin and Mill, 2005; *American Society of Health Care Pharmacists*, 1996).

Conclusion

Of this study can not be concluded whether there is a link between the incidence of SBP with the use of drugs gastrointerstinal, because there are many factors that can affect treatment outcomes. Therefore further research is needed to be able to see the connection.

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