ABSTRACT

DRUG UTILIZATION STUDY OF Mannitol IN Haemorrhagic Stroke Patients

(Study was performed at Neurology Departement of Dr. Soetomo General Hospital Surabaya)

AISYAH ULIMA RIZKA

BACKGROUND: Hemorrhagic Stroke is an acute neurological injury occurred due to bleeding in the head. Bleeding causes the blood to spread to surrounding area of the brain parenchyma and cerebrospinal fluid region. Stroke patient who has elevated blood pressure is usually also accompanied by increased intracranial pressure, increased cerebral perfusion pressure. In addition, if the cerebral perfusion pressure increases, there will be an abnormal accumulation of fluid in the brain tissue which then leads to the volumetric enlargement could be called cerebral edema. Therefore, the administration of mannitol in patients with hemorrhagic stroke is to provide rapid effect in reducing the intracranial pressure and edema.

OBJECTIVE: This study aimed to determine the pattern of use of mannitol in patients with haemorrhagic stroke and identified Drug Related Problems that occurred both actual and potential.

SUBJECT AND METHOD: This study was performed at Neurology Department Dr Soetomo Hospital with prospective study method. The samples used in this study is patients with diagnosis haemorrhagic stroke who received mannitol in the period March, 4th 2013 until May, 31st 2013. Data was obtained from the patients’ medical records.

RESULT: Based on the result, the total research’s object were 11 patients. Haemorrhagic stroke patients got mannitol 20% in the first week they hospitalized by drips intravenous route. The most common dose was a loading dose given 1 x 200 cc continued with maintenance dose of 6 x 100 cc in tappering. Mannitol could be given either as single therapy or in combination with one or some types of antihypertensive drugs in order to give the synergistic effect. The actual drug related problems (DRPs) was not found. And based on the clinical data, mannitol showed no adverse effect reaction and symptomps like headache, nausea, vomiting, dehydration etc were treated.

KEYWORDS: drug utilization study, haemorrhagic stroke, mannitol, intracranial pressure, edema