

Albumin Usage Patterns in Burn Patients at The Regional General Hospital dr Pirngadi Medan

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Abstract: The study was designed to evaluate the medication treatment patterns of burn patients at the regional general hospital dr Pirngadi Medan and to know the administration albumin therapy in burn patients according to the treatment needs of patients. This research using descriptive method and was performed at certain time, as the first stage gave an overview of the treatment of burns. Material and sources of data was obtained from medical records at the regional general hospital dr Pirngadi Medan. This results was showed 30 patients that was evaluated turns 20 patients was recovered (66.70%) and 10 patients was died (33.30%), 18 patients without albumin therapy as many as 16 patients was returned to the recover condition and 2 patients died. Samples were tested with 2 tailed Kolmogorov-Smirnov and was obtained 1.549 and $P=0.016$ where $p<0.05$ that showed the different with albumin therapy and without albumin therapy. Not all of patients was treated with albumin only patients who need only.

Key words: Burns, albumin therapy.

Introduction

Hospital is a health care institution that organize personal health care in plenary which provides inpatient services, outpatients and emergency department. Hospital pharmacy services is one of the activities in hospitals that support quality health services¹. The hospital pharmacy services activities includes: assessment prescriptions, dispensing, monitoring and reporting of drug side effect, drug information service, counseling, therapeutic drug monitoring, patient visits, and the assessment of drug usage².

One disease that hospitalized at the regional general hospital dr Pirngadi Medan was burnt patients. Burn is a type of injury, tissue damage or tissue loss that resulting from heat sources or high cold temperatures, electric sources, chemicals, and radiation².

Types of injuries can have a varied and different handling depending on type of tissue that affected burns, severity, and complication cause by the injury³. Burn can damage muscle tissue, bone, blood vessels, and epidermal tissue that cause damage to the neurological system. Most burns associated with accidents at home and some occur in the workplace. Albumin has been used for decades as one of the therapeutic options in medical practice⁴. The goal is to overcome the condition of hypoalbuminemia in various disease⁵.

Based on the above, researcher was interested to examine the handling and effectiveness of the administration of albumin infusion is used to improve low albumin levels till normal and help accelerate the healing of disease in burn patients.

Research method

The method that used in this research was descriptive method. Research was conducted as the first stage with the aim of providing an overview treatment of burns at the regional general hospital dr Pirngadi Medan.

Place and time research

This research was conducted in 2012 in the medical record at the regional general hospital dr Pirngadi Medan.

Research design

Research subject

The research subject was drawn from population of hospital patients who suffered burns. Determination of the subject using retrospective study based on a search in the form of medical record burn patients in 2011.

Target population

Burn patients who received albumin therapy and burn patients without albumin therapy.

Stage of research

- a. Collecting medical record data of burn patients. Medical records were recorded as: name, medical record number, age, weight, hospital sheet, anamnesis, physical assessment, and existing investigations. So that the data was obtained by a number of 45 burn patients.
- b. Separating the data that meets of inclusion and exclusion criteria. The data was investigated fulfill of inclusion criteria was adult patients and patients based on examination with albumin level >3 was obtained 30 patients consist 18 male and 12 female patients,
- c. The data was obtained analyzed. The result was obtained and separated according to albumin usage on burn patients, so that will be obtained albumin usage patterns. Separation was also performed during the patient's home in order to know the patients condition with albumin usage at the time of discharge from the hospital. The data on the state of patients at the time of entry and exit. Samples was tested with 2 tailed of Kolmogorov-Smirnov and 2 sided of Fisher's exact test⁶.

Results and discussion

A study of burn patients general hospital dr. Pirngadi Medan, there were 45 burn patients, after recording and selection of data obtained burn patients included 30 men for inclusion is studied is composed of 18 men and 12 women. In women generally caused fire burns due to electric shock while men in connection with their employment risk². In this study found more men in connection with risk because of their work.

By the time a patient comes to the hospital is as much as 19 people (63.33%) immediately or less than 1 day to the hospital, a total of 7 people (23.33%) came to the hospital after 1-3 days and the remaining 4 (13.33%) came to the hospital after more than 3 days burns. Data from patients who recovered and died came to the hospital <3 days were 26 people with 17 people recovering and 9 people died. Patients come >3 days of 4 people with 3 people and 1 person died cured samples were tested with Fisher's Exact Test 2-sided $P = 1$ is obtained, there is no effect of time a patient comes to the hospital. Based on data from the use of albumin, the number of patients cured 20 people died and 10 people, in which 18 people without the use of albumin and albumin 12 people use. Samples were tested by the Kolmogorov-Smirnov two tailed figures obtained 1.549 and $P = 0.016$ where $P < 0.05$, which shows the difference in albumin therapy with no albumin therapy. LOS data (long of stay) 18 people were treated for 1-12 days turns 12 recovered and 6 people died, in 12 patients who were treated for 13-30 days seen 8 people recover and 4 people died. Samples were tested by Fisher's Exact Test 2-sided $P = 1$ is obtained, there is no difference with treatment recover and died.

From the research, not all patients treated for burns albumin, because albumin is not the only indication for the administration of albumin because albumin is not directly related to the volume of plasma and other fluids, but because of the excess and deficit in intravascular fluid caused by dilution, disease and distribution

factors⁷. The life expectancy of patients after burns are not directly related to albumin therapy but closely related to the accuracy and speed of first aid given. Overview of the factors that determine the severity of burns, and possible consequences for someone.

Conclusion

The number of burn patients in this study were 30 people In burn patients in general hospital dr. Pirngadi Medan studied usage patterns after therapy with albumin and incorporated with the Kolmogorov-Smirnov test turns out there is a difference between providing therapy without albumin and albumin therapy. Healing of burns is not only dependent albumin administration alone, but a lot of factors that support the healing of patients, one of which is fast or slow the patient was taken to the hospital and precise handling in the hospital⁸.

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