ABSTRACT

STUDY OF ALBUMIN USE FOR DIABETIC GANGRENE PATIENTS (Study at Rumkital Dr. Ramelan Surabaya)

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Background: Gangrene is the death of tissue, also called necrosis, due to infection as a result of peripheral vascular disease. This infection causes an inflammatory reaction resulting in increased microvascular permeability thereby increasing the transfer rate transcapillary albumin into the interstitium space. It also causes changes in the metabolic system such as decreasing hepatic albumin synthesis rate and increasing albumin catabolism rate. All of these factors cause hypoalbuminemia which may worsen the patient's gangrenous wounds and increase the morbidity/mortality risk. To overcome these conditions, intake of albumin is required to increase the albumin level and help patients wounds healing.

Objective: The aims of this study was to analyze the profile of albumin used in diabetic gangrene patients and to identify the problems related to albumin treatment used.

Method: Data were collected retrospectively from 21 patients of diabetic gangrene who received albumin treatment while hospitalized in Rumkital Dr. Ramelan Surabaya between April 2013 to April 2015.

Results: The results showed that albumin has been administered to patients with albumin level was <2.5 g/dL and/or depend on patients conditions. There were two types of albumin used, Human Albumin 20% and Human Albumin 25% which each given in 100 cc. Albumin has been administered to patients once a day, till albumin level patients reach >3.0 g/dL or their conditions improved. Albumin total given were 1 – 2 times while patients hospitalized. Overall albumin level increased after administration was 0.4 g/dL. However, there were cases which albumin level decreased after administration, in this case related to debridement and/or amputation which patients choose to take. Most of all patients (71.4%) were improved their condition when discharged from hospital.
Conclusions: Albumin use in diabetic gangrene patients with albumin level <2.5 g/dL and/or depend on patients condition. Overall albumin level patients increase 0.4 g/dL after administrating and reach therapy target by giving 1 – 2 times.

Keywords: diabetic gangrene, hypoalbuminemia, albumin treatment, albumin level.