A172 - A low serum albumin level in patients with burn shock is an independent risk factor for death.

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Introduction:
Definitive large randomized controlled trial investigating the use of albumin for burn shock resuscitation have yet to be conducted. To date, we have a meta-analysis [R.J. Navickis et al, 2014] that suggests that albumin can improve outcomes of burn shock resuscitation. But many aspects of albumin transfusion remain controversially. The aim of this retrospective study was to determine the effect of transfusion of colloids, TBSA, age, sex and serum albumin level on the incidence of AKI and death.

Methods:
Design: retrospective cohort controlled study. Inclusion criteria: males and females >18 years of age, TBSA burned 20%-80%, absence of AKI (KDIGO) at the admission. Patients were divided in two groups: albumin group – 31 patients received 10% albumin in addition to base fluid therapy with Ringer solution and control group – 32 patients received Ringer solution and other colloids, except albumin.

Results:
Baseline characteristics were well balanced between groups except for the age. 28-days mortality was significantly different: 48.4 % and 81.2 % in albumin group and control group, respectively, p<0.01. Rate of AKI (KDIGO I-III) was 32.3 % in albumin group and 62.5 % in control group, p=0.02. There wasn’t significant difference between groups in total volume of fluids administered and diuresis in the first 3 days of treatment. To determine the independent risk factors for AKI and death, we performed a logistic and Cox-regression analysis involving factors such as: sex, age, TBSA, deep burns, transfusion of albumin, HES, gelatins and serum albumin level. Independent risk factor for AKI was age (OR 1.09 (95%CI 1.00-1.17), p=0.02). Independent risk factors for death were TBSA (OR 1.04(95%CI 1.01 – 1.08), p=0.03) and serum albumin level (OR 0.85(95%CI 0.74 – 0.98), p=0.03).

Conclusion:
This study did not show influence of 10% albumin transfusion on mortality and incidence of AKI in patient with burn shock. Nevertheless low serum albumin level is independent risk factors for death.