



The most common cause of hemodialysis mortality relates to cardiovascular diseases (60.2%), regardless of frequent innovations and improvement of hemodialysis procedures” Coric et al (2015).

Reference:

Coric, A., Resic, H., Celik, D., Masnic, F., Ajanovic, S., Prohic, N., Beciragic, A., Grosa, E., Smajlovic, A. and Mujakovic, A. (2015) Mortality in hemodialysis patients over 65 years of age. *Materia Socio-Medica*. 27(2), p.91-4.

Mortality in hemodialysis patients over 65 years of age <http://ctt.ec/F1H6d> @ivteam #ivteam

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Abstract:

**INTRODUCTION:** Based on the statistics the population in Bosnia and Herzegovina is getting older. In 2013 the average life span for women was 73.6 years and 68.1 for men. The chronic hemodialysis program is mainly reserved for elderly patients with high mortality risk. The most common cause of hemodialysis mortality relates to cardiovascular diseases (60.2%), regardless of frequent innovations and improvement of hemodialysis procedures.

**THE AIM OF THE STUDY:** was to determine the mortality rate by age groups with comments on the presence of non-traditional predictors (anemia, hypoalbuminemia, CRP, vascular

access and PTH) in dialysis patients in the follow-up period of 36 months.

**METHODS:** The study included all patients undergoing chronic hemodialysis treatment at the Clinic of Hemodialysis of the Clinical Center University of Sarajevo (CCUS).

**RESULTS:** Out of a total number of hemodialysis patients (n=232), the specific mortality rate in patients under 65 years of age was 16.8%, and 50.5% in patients over 65 years of age. According to the age groups the mortality rate in elderly patients is as follows: from 65 to 74 years (45.1%), from 75 to 84 years (55.0%), over  $\geq 85$  years (75.0%). The most frequent vascular access in patients under and above 65 is arteriovenous fistula (79.6% and 62.1 %), temporary hemodialysis catheter (11.7% and 43.8 %) and long-term hemodialysis catheter (8.8% and 4.2 %). In the age group under 65 years of age the temporary hemodialysis catheter is significantly and more frequently used in diseased patients in respect to survivors (34.8% vs. 7.0%) [ $\chi^2(2)=15.769$ ,  $p=0.001$ ]. Diseased patients from the age group over 65 had a significantly lower mean value of haemoglobin in blood ( $M=100.9\pm 17.5$  g/L) in respect to survivors ( $M=109.2\pm 17.1$ ) [ $t(93)=2.339$ ;  $p=0.021$ ], lower mean value of albumin in blood ( $Me=32.0$ ; IQR=29.0 do 35.0) in respect to survivors ( $Me=34.0$ ; IQR=32.0 to 38.0) [ $U=762.5$ ;  $p=0.006$ ], and higher mean value of CRP in blood ( $Me=19.3$  mg/L; IQR=6.6 to 52.0) in respect to survivors ( $Me=7.8$ ; IQR=4.0 to 16.7) [ $U=773.5$ ;  $p=0.008$ ]. Diseased patients belonging to the age group over 65 had lower mean value of PTH, but without statistical significance ( $p>0.05$ ).

**CONCLUSION:** older age, temporary vascular access, anaemia and hypoalbuminemia are strong predictors of mortality in hemodialysis patients. Old age does not present contraindication for hemodialysis treatment, and treatment of terminal renal illness should not be abandoned.

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