اثر دیالیز بر غلظت خونی عناصر روی، مس، سلنیوم، آلومینیوم و سرب در بیماران
دیالیزی

خلاصه:

 доходیه‌گری: نتایج نشان می‌دهد که دیالیز بیماران جامعه مورد مطالعه، منجر به کاهش غلظت منیزیم خون دیالیز، آلوده‌شدن افراد به فاز سنگین آلومینیوم و سمومیت با سرب می‌باشد.
The effect of dialysis on the Zinc, Copper, Selenium Aluminium and Lead blood levels in dialysis patients in Ahwaz during 2011-2012

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Abstract:

Background: Variations in the blood levels of trace elements are reported as a problem in the dialysis patients. This may result in the deficiency of some trace elements or the overloading of the other elements. This study aimed to evaluate the effect of dialysis on the blood level variations of Zinc, Copper, Selenium, Magnesium and the two heavy metals, Aluminium and Lead.

Materials and Methods: This study was performed on 33 dialysis patients referred to Ahwaz (Iran) hospital. Serum samples for all the elements except for lead (whole blood) were assayed using the atomic absorption spectroscopy before and after dialysis.

Results: Of 33 patients, 16 cases were male and 17 female. Mean age of the patients was 54.81±15.65. The levels of elements before and after dialysis for Zinc were 85.9±12.8 and 99.87±17.45 (P=0.000), Copper 75.36±16.6 and 73.78±26.69 (P=0.711), Selenium 10.71±1.49 and 10.63±1.56 (P=0.709), Aluminium 0.588±0.25 and 0.74±0.36 (P=0.067), Magnesium 0.328±0.068 and 0.263±0.049 (P=0.000), Lead 2.714±0.647 and 2.835±0.39 (P=0.233) (µg/dl for all). Lead levels were higher than the allowable level.

Conclusion: Results show that dialysis can cause a reduction in magnesium level, overloading and poisoning with the two heavy metals, Aluminium and Lead.

Keywords: Dialysis, Trace elements, Atomic absorption spectroscopy, Poisoning, Heavy metals