

Leonid Feldman^{1,2}, Ilia Beberashvili^{1,2}, Ramzia Abu Hamad^{1,2}, Iris Yakov-Hai¹, Elena Abramov¹, Walter Wasser³, Roza Rozenberg^{1,2} and Shai Efrati^{1,2}

¹ Nephrology Department, Assaf Harofeh Medical Center, Zerifin, ² Sackler School of Medicine, Tel Aviv University, Tel Aviv, ³ Mayanei HaYeshua Medical Center, Bnei Brak, Israel

BACKGROUND

- Elevated serum chromium level in chronic dialysis patients is generally recognized but has not been systematically studied.
- The association of serum chromium level with dialysis modality is not known.
- The aim of this study was compare serum chromium level in patients treated with chronic peritoneal dialysis and with chronic hemodialysis.

METHODS

- The study involved 169 chronic dialysis patients
- 148 patients were treated with hemodialysis
- 21 patients were treated with peritoneal dialysis
- Serum chromium level was measured by atomic absorption spectrometry.
- Normal serum chromium is 0.1-0.2 mcg/L
- Multivariate logistic regression model included adjustments for age, gender, diabetes status, smoking, dialysis vintage, residual GFR and use of diuretics.

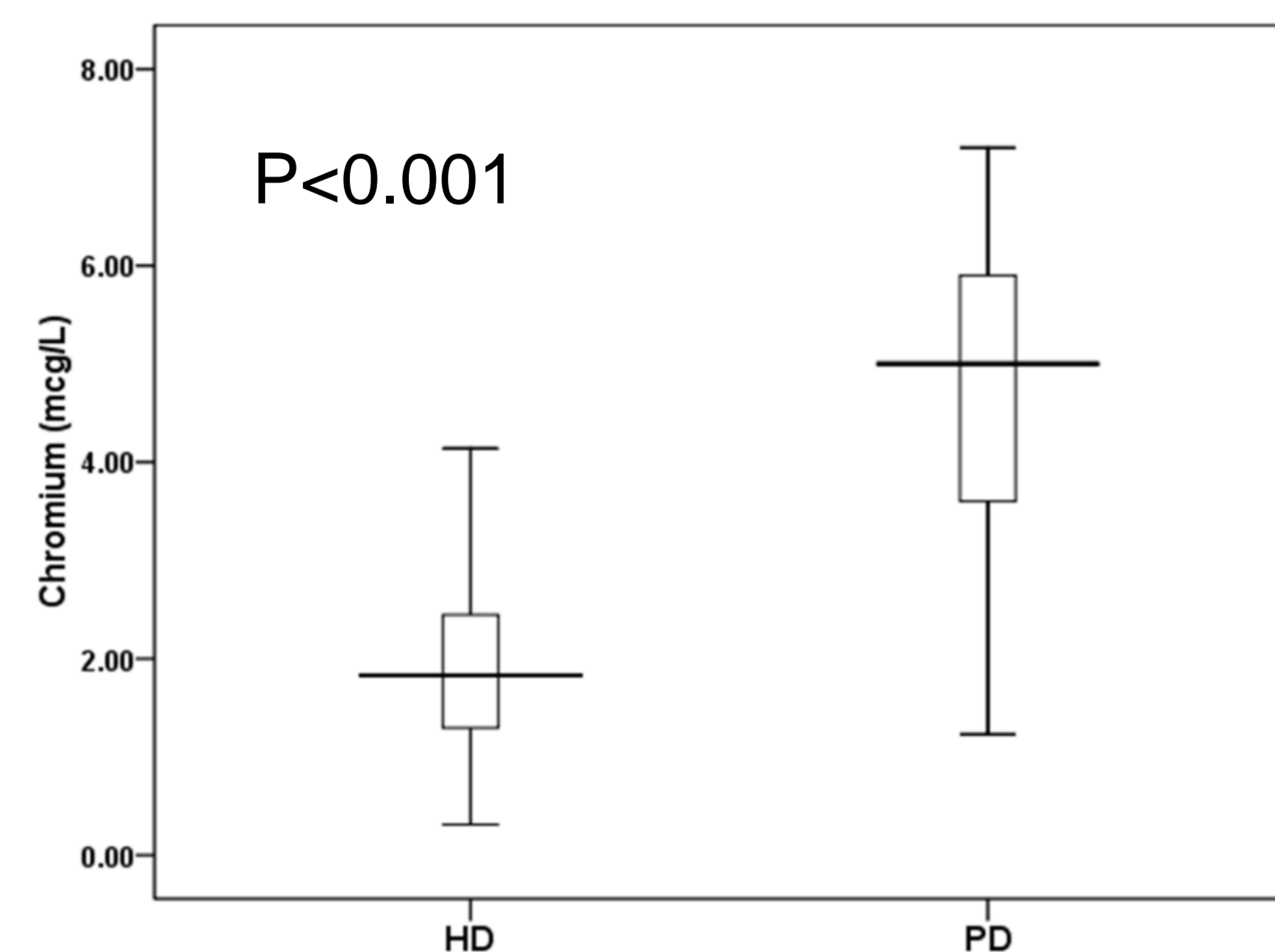
RESULTS.

- The serum chromium level was significantly higher in PD than in HD patients (**Table and Figure**).
- In a univariate analysis chromium level was associated with PD modality: OR = 7.5 (95% CI 2.1 – 26.4), p=0.002.
- This association remained significant in multivariate logistic regression model: OR=11.9 (95% CI 2.8 – 49.5), p=0.001.

TABLE.

Variables	HD	PD	p
Patients, no	148	21	
Vintage, months	25.5 (12.0-66.0)	16.0 (6.5-56.0)	0.14
Chromium, mcg/L	1.8 (1.3-2.4)	5.0 (3.2-6.1)	<0.001
GFR, ml/min	0.0 (0.0-1.8)	1.9 (0.2-4.2)	0.002
Urine, ml/24h	0.0 (0.0-225.0)	400.0 (50-950)	<0.001

FIGURE.



CONCLUSIONS

- Serum chromium level associates with dialysis modality.
- Serum chromium is higher in PD than in HD in patients.

Correspondence: Leonid Feldman MD, Nephrology Department, Assaf Harofeh Medical Center, Zerifin, 70300, Israel
eMail: leonidf@asaf.health.gov.il

54th ERA-EDTA Congress, 3-6 June 2017, Madrid, Spain.