

BACKGROUND

Kidney transplantation (KT) is the optimal therapy for end-stage renal disease (ESRD), resulting in significant improvement in survival as well as quality of life when compared with maintenance dialysis (Rangaswami J et al., 2019). Patient survival with ESRD is longer after kidney transplantation compared with remaining on dialysis (Arcos E et al., 2019). Older kidney patients with chronic kidney disease benefit significantly from kidney transplantation (Schaenman J et al., 2019). However, these older transplant recipients have greater mortality after transplantation than younger transplant recipients (Schaenman J et al., 2019). This study evaluates factors that may contribute positively, negatively or no-cause effect in renal graft survival.

METHODS

A list of all renal transplant recipients living in Malta was attained to date. Data, electronic patients blood results and electronic discharge letters were also obtained. All this data was then inputted in an Excel/Numbers sheet and was then converted to numerical form for statistical data analysis using IBM SPSS version 25.

RESULTS

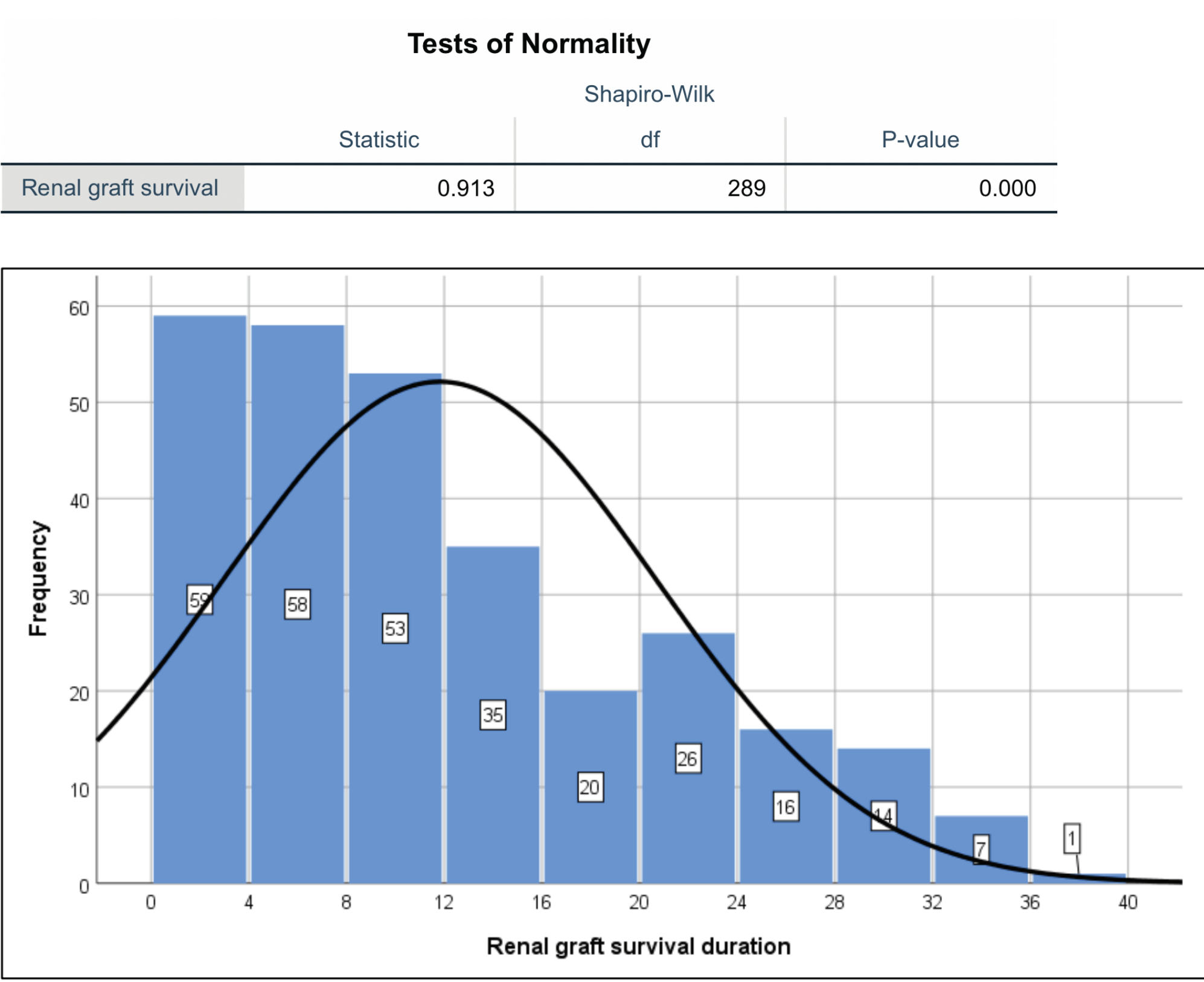
The Shapiro-Wilk test was used to determine whether the renal graft survival duration distribution was normal or skewed. The null hypothesis specific to the duration distribution was normal and was accepted if the p-value exceeds the 0.05 level of significance. The alternative hypothesis specifies that the duration survival distribution is skewed and is acceptable if the p-value is less than the 0.05 level of significance. The Shapiro-Wilk p-value (approxiamtely zero) is less than the 0.05 level of significance indicating that the survival duration distribution does not satisfy the normality assumption. For this reason non-parametric tests will be used to analyse the data. The Kruskal Wallis will be used to compare mean graft survival duration between several groups of participants grouped by gender, type of renal transplant donor, country where surgery was done and age of the patient.

CONCLUSIONS

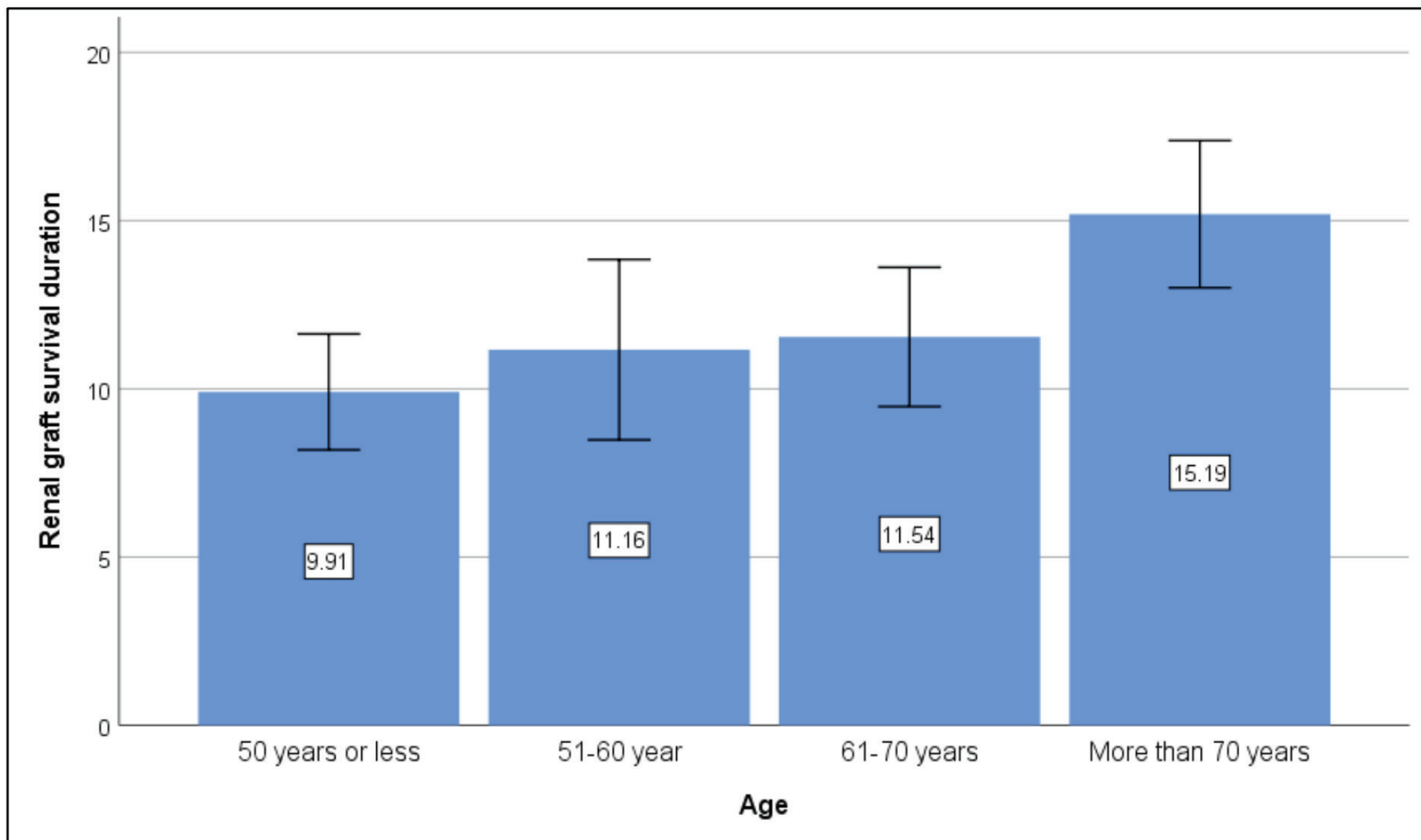
There is no statistical significant difference with respect to renal graft survival when taking into account gender, type of renal transplant donor and country where surgery was done. But on the other hand age of the renal recipient does matter; the older one gets the less is the renal graft survival, in this study, measured in years.

REFERENCES

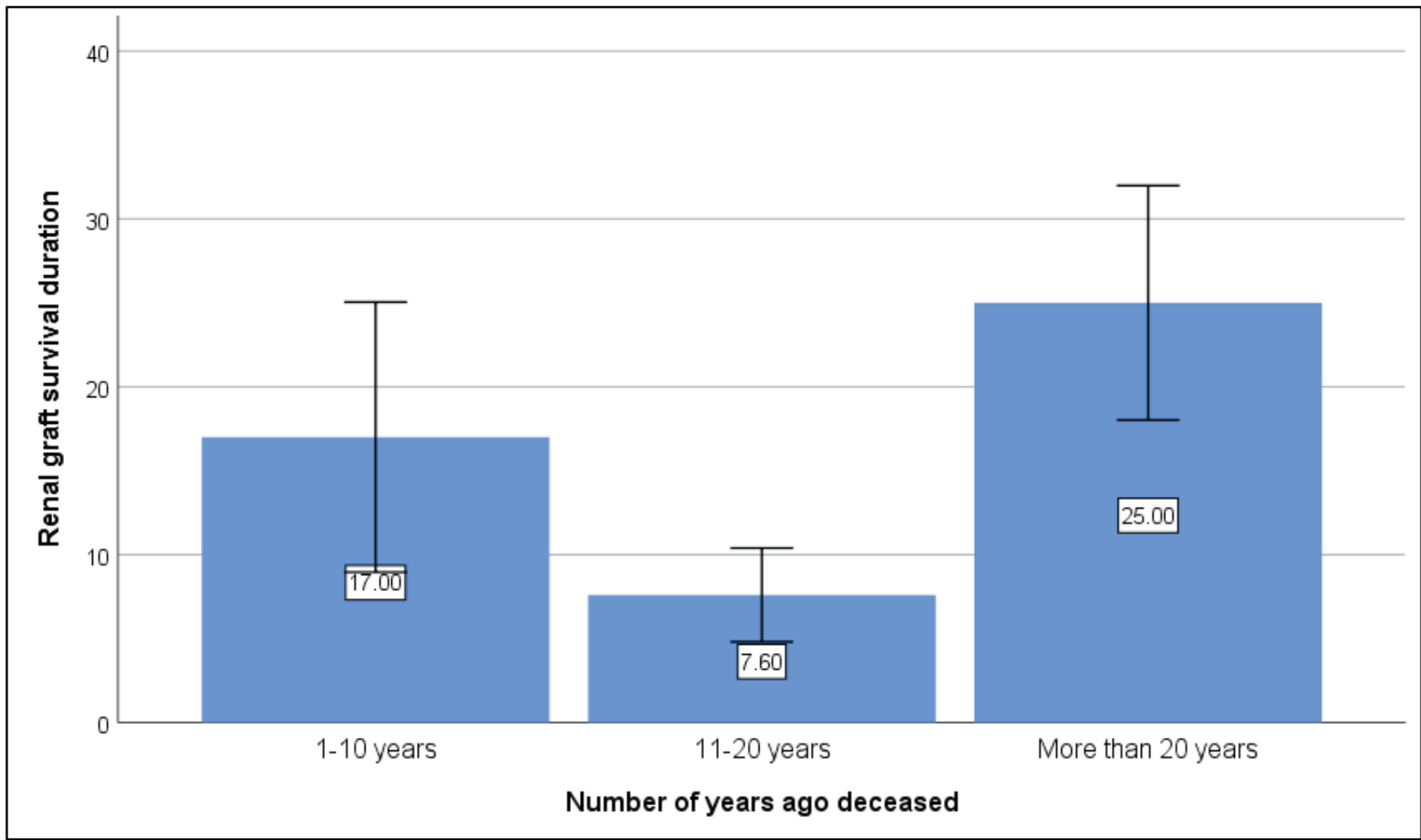
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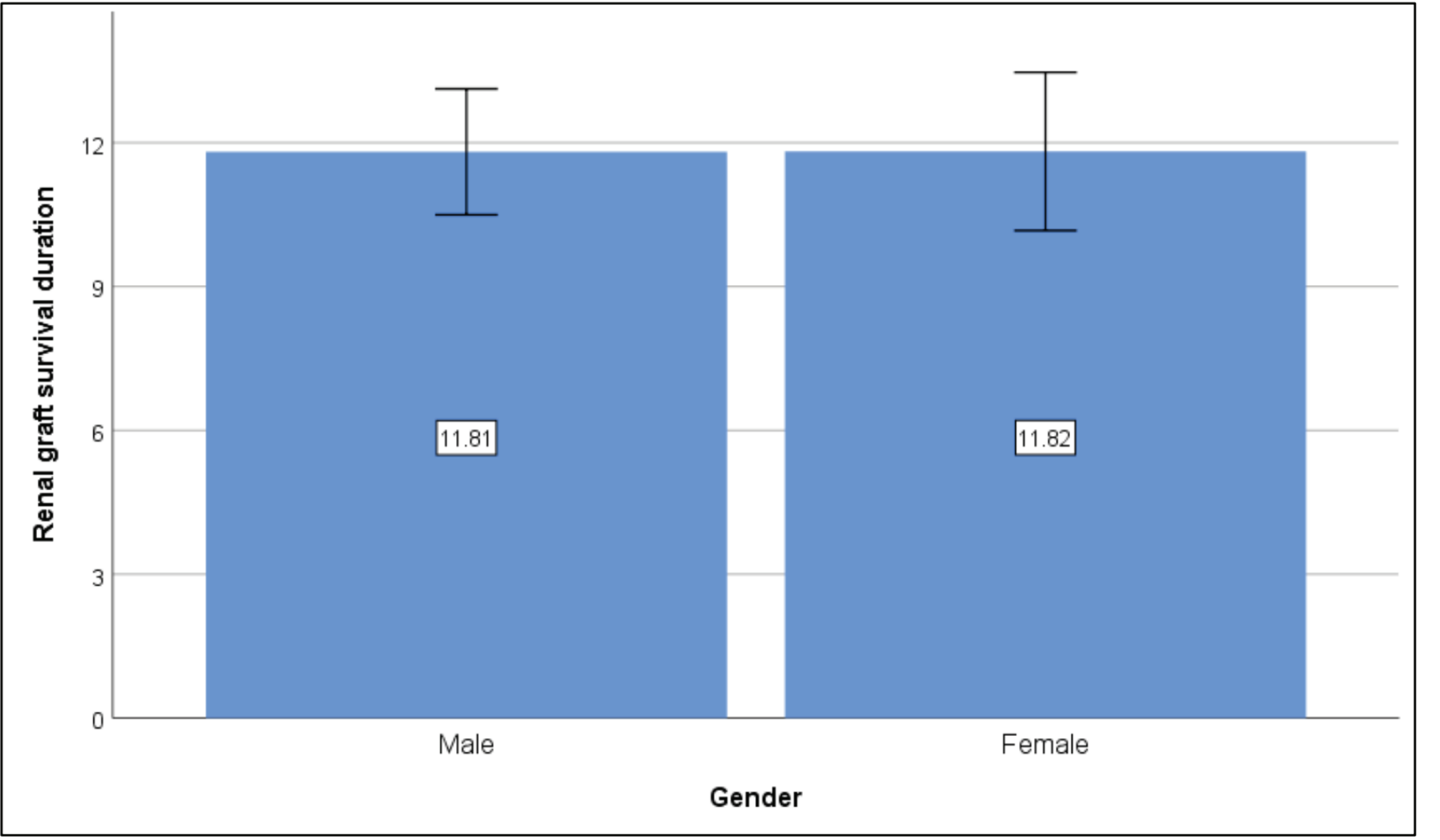
Age	Sample size	Mean survival duration	Std. Deviation	P-value	95% Conf. Int. for Mean	
					Lower Bound	Upper Bound
50 years or less	75	9.91	7.487	0.003	8.18	11.63
51-60 year	56	11.16	10.007		8.48	13.84
61-70 years	72	11.54	8.806		9.47	13.61
More than 70 years	68	15.19	9.036		13.00	17.38



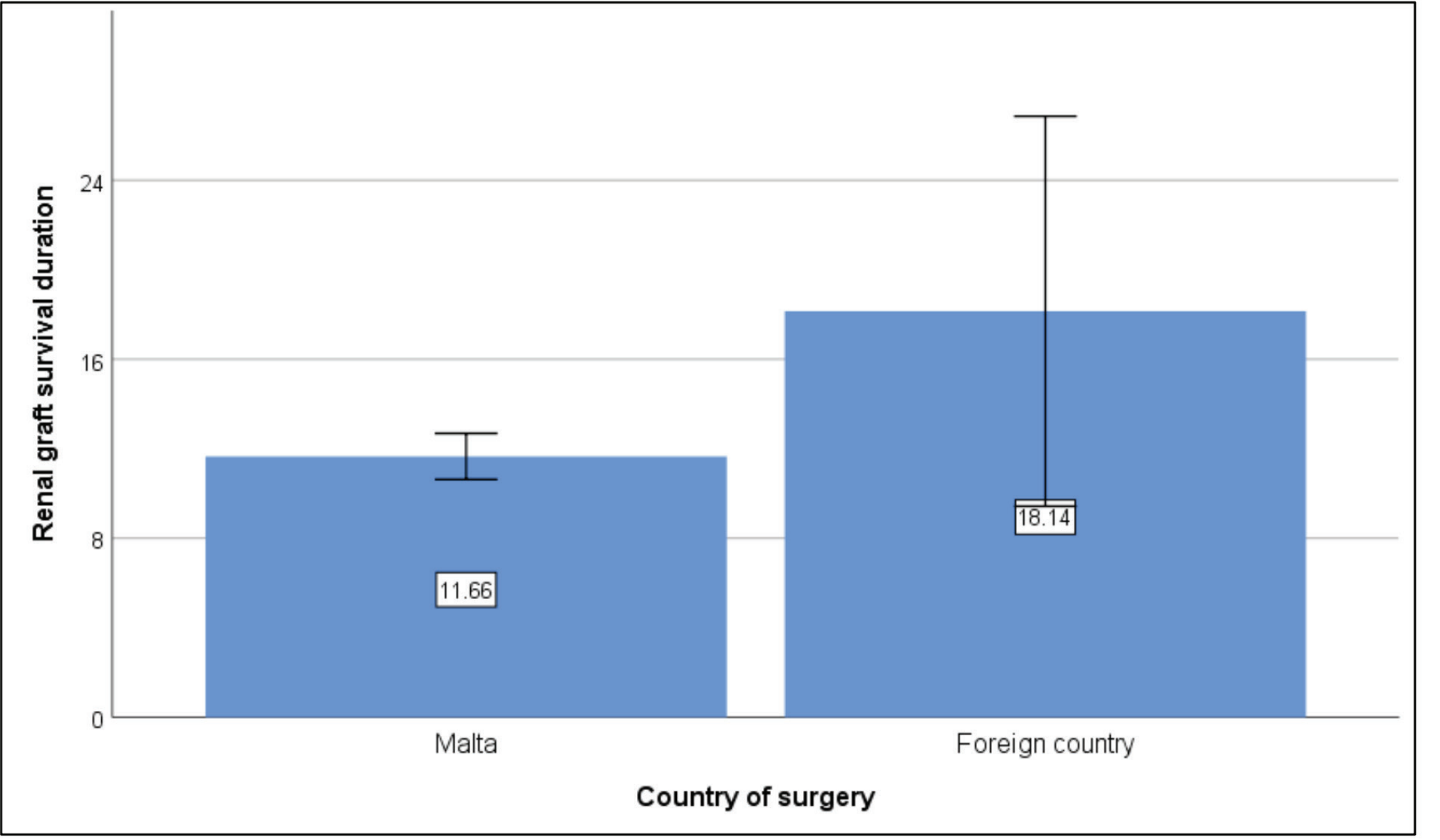
Duration since death	Sample size	Mean survival duration	Std. Deviation	P-value	95% Conf. Int. for Mean	
					Lower Bound	Upper Bound
1-10 years	8	17.00	9.621	0.001	8.96	25.04
11-20 years	15	7.60	5.040		4.81	10.39
More than 20 years	11	25.00	10.392		18.02	31.98



Gender	Sample size	Mean survival duration	Std. Deviation	P-value	95% Conf. Int. for Mean	
					Lower Bound	Upper Bound
Male	185	11.81	9.061	0.773	10.50	13.13
Female	104	11.82	8.491		10.17	13.47



Country of surgery	Sample size	Mean survival duration	Std. Deviation	P-value	95% Conf. Int. for Mean	
					Lower Bound	Upper Bound
Malta	282	11.66	8.790	0.047	10.63	12.69
Foreign country	7	18.14	9.424		9.43	26.86



Type of renal transplant	Sample size	Mean survival duration	Std. Deviation	P-value	95% Conf. Int. for Mean	
					Lower Bound	Upper Bound
Deceased heart beating	214	11.54	8.561	0.066	10.38	12.69
Living-related	71	13.08	9.655		10.80	15.37
Living unrelated	4	4.00	2.708		0.00	8.31

