

THE INFLUENCE OF FUNCTIONING ARTERIOVENOUS FISTULA IN CARDIAC FUNCTION IN PATIENTS WITH KIDNEY TRANSPLANTATION

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Background and aim

The arteriovenous fistula (AVF) has been implicated in the deterioration of cardiac function in patients with end stage chronic kidney disease on dialysis. The effect of AVF on cardiac function in patients who have received a kidney transplant is unknown. Therefore there are no instructions that recommend preservation or ligation of the AVF in patients after successful kidney transplantation. Thus, the purpose of this study was to investigate the effect of a functioning AVF in the long term cardiac function and the potential benefits of a AVF ligation.

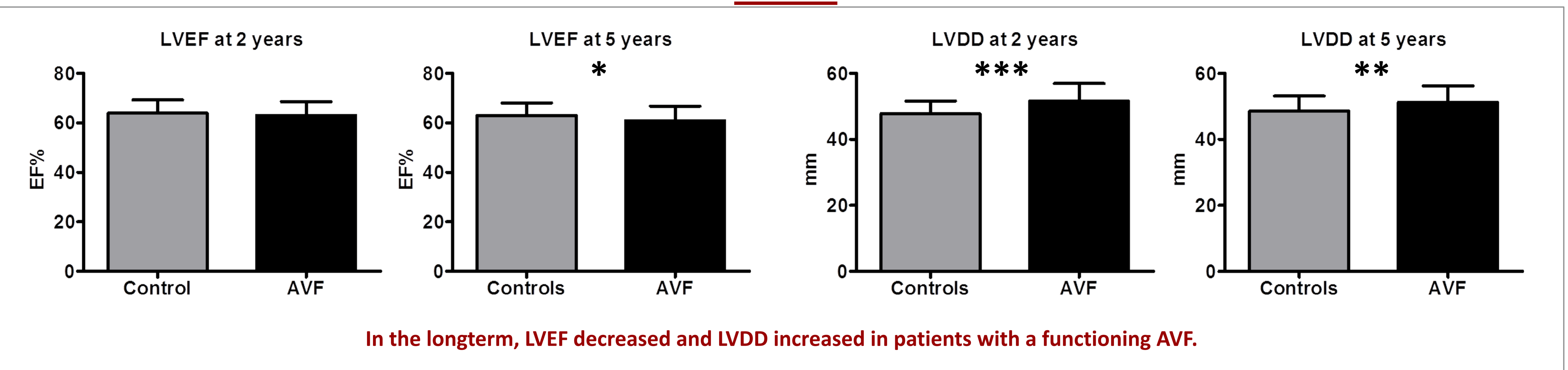
Methods

We studied a total of 99 patients who underwent kidney transplantation and had at least 5 years of follow-up after surgery with echocardiography.

Patients were divided into two groups:

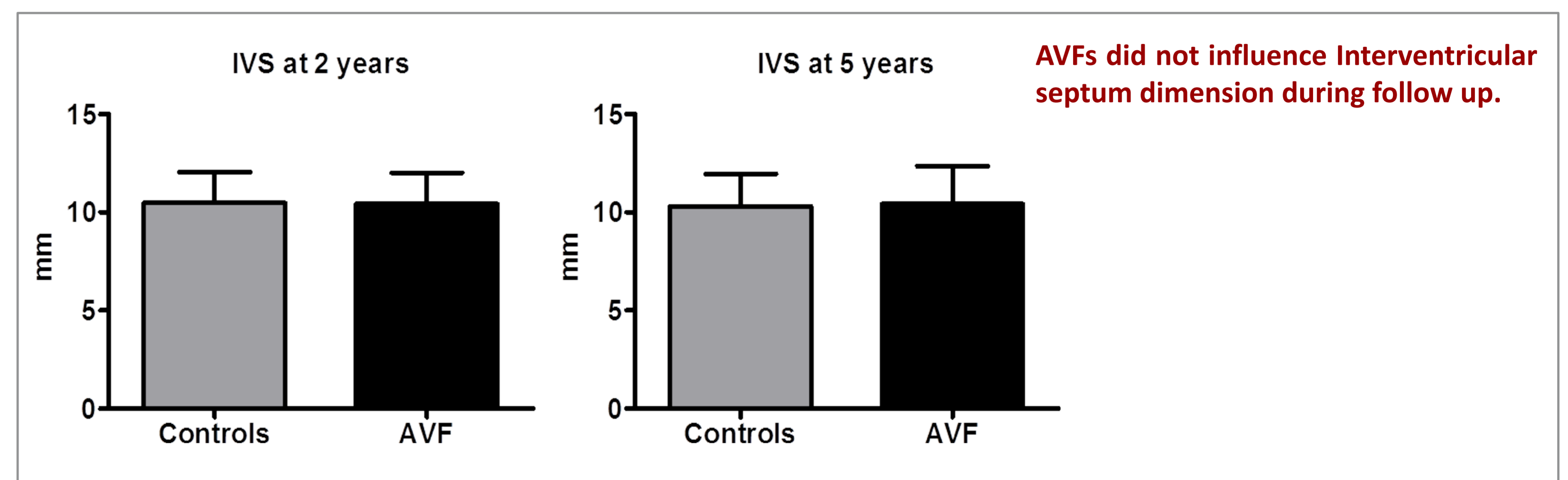
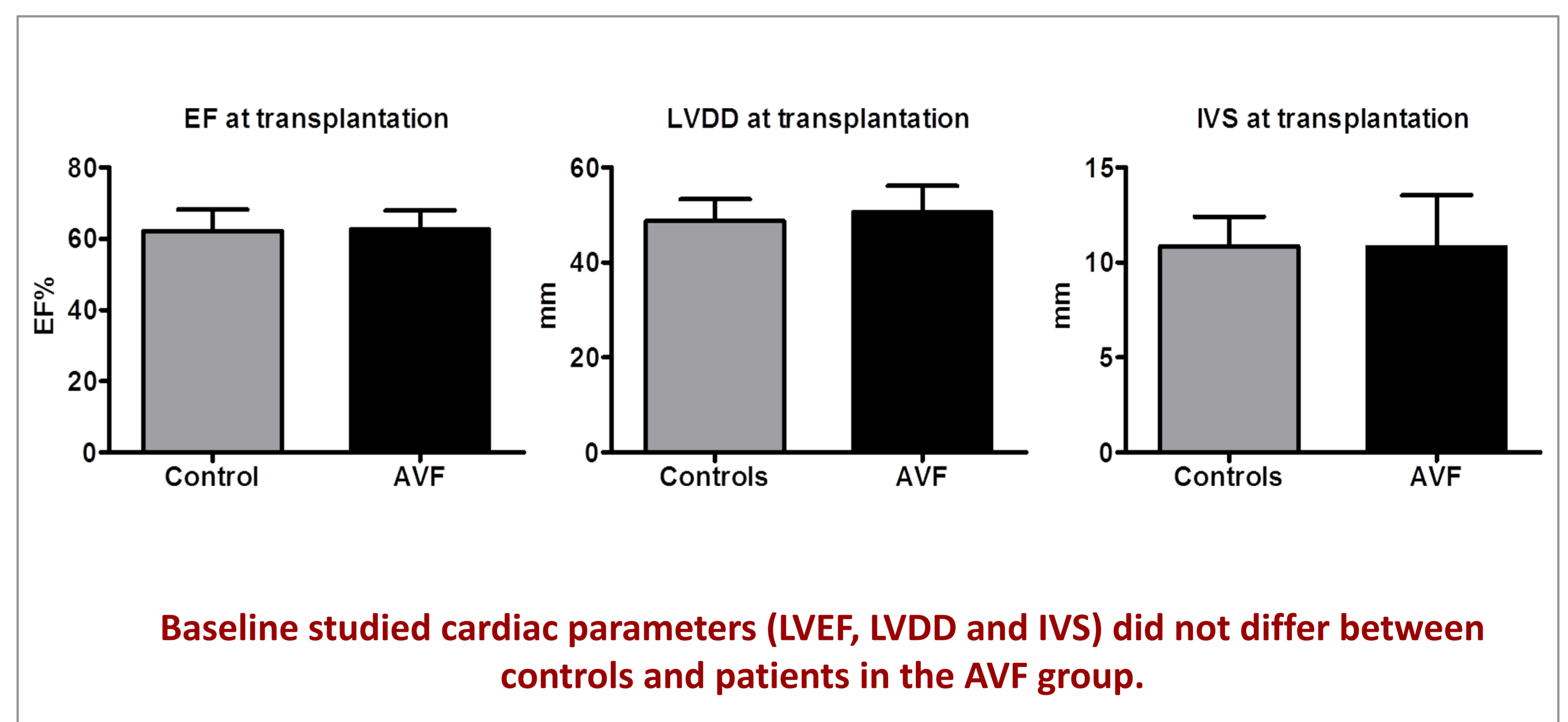
- ✓ The first group (**control**) included 47 patients with no functioning AVF immediately after transplantation
- ✓ The second (**AVF group**) included 52 patients with a functioning AVF for at least 2 years after transplantation.
- ✓ We studied: the left ventricular ejection fraction (**LVEF**), the thickness of the interventricular septum (**IVS**) and left ventricle diastolic diameter (**LVDD**) immediately before surgery (baseline parameters) and at 2 and 5 years after transplantation.

Results



	AVF group	Control	p
Mean age (years SD)	55,8 12	55,3 11	0,83
Gender (M/F)	36 / 16	26 / 21	
sCreatinine (mg/dl SD)	1,56 0,5	1,41 0,4	0,11
Proteinuria (mg/24h urine)	245 22	191 12	0,53
Cause of ESRD			
Diabetic nephropathy	3	3	
Hypertension	3	1	
Polycystic disease	7	3	
Glomerulonephritis	19	15	
Other/Unknown	20	25	
Immunosuppression			
GC + Fk + MMF	29	30	
GC + CsA + MMF	20	16	

Table 1. Patients' basic clinical characteristics and differences between groups.



Conclusions

- ✓ Maintaining arteriovenous fistulas in patients after successful renal transplantation appears to adversely affect the long-term cardiac function. However, whether these findings may have an impact on long-term patient or renal transplant survival needs further research.



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