

## Valvular heart disease after kidney transplantation

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**KEYWORDS:** valvular heart disease, kidney transplantation.

**CITATION:** *Cardiol Croat.* 2015;10(3-4):63. | **DOI:** <http://dx.doi.org/10.15836/ccar.2015.63>

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**INTRODUCTION:** Cardiovascular diseases are the greatest cause of morbidity and mortality in patients after kidney transplantation. Valvular heart disease is a common occurrence in patients on chronic dialysis. Abnormalities include valvular and annular thickening and calcification of any of the heart valves, causing regurgitation and/or stenosis. Valvular thickening or sclerosis in patients on chronic dialysis treatment most commonly affecting the aortic and mitral valve. Current knowledge of valvular heart disease in patients after kidney transplantation are scarce.

**AIM:** To determine the prevalence of valvular heart disease in kidney transplant patients and patients treated with hemodialysis. To determine whether there is a difference in the prevalence of valvular heart disease among kidney transplant patients and patients treated with hemodialysis.

**PATIENTS AND METHODS:** We conducted a prospective study that included 90 patients. All patients had their history data taken, electrocardiogram, complete physical examination and echocardiography. The difference in frequency of the observed parameters was tested by chi-square test.

**RESULTS:** Patients were divided into two groups: kidney transplant patients (60 patients) and patients treated with hemodialysis (30 patients). In the group with kidney transplant patients was 42 (70%) men and 18 (30%) women. In the group with patients treated with hemodialysis was 15 (50%) men and 15 (50%) women. The average age in kidney transplant patients was  $42.22 \pm 1.71$  years, in the group with patients treated with hemodialysis was  $52.97 \pm 2.98$  years. The mean duration of dialysis before kidney transplant in the group with kidney transplant patients was  $43.00 \pm 9.19$  months. The average kidney graft survival was  $9.1 \pm 9.68$  years. The mean duration of dialysis in the group with patients treated with hemodialysis was  $87.00 \pm 15.6$  months. Tricuspidal regurgitation had 20 (33.33%) kidney transplant patients and 12 (40%) patients treated with hemodialysis; p value 0.1988. Mitral regurgitation had 20 (33.33%) kidney transplant patients and 17 (56.67%) patients treated with hemodialysis; p value 0.0294. Aortic regurgitation had 9 (15%) kidney transplant patients and 10 (33.33%) patients treated with hemodialysis; p value 0.0435. Pulmonary valve regurgitation had 0 (0%) kidney transplant patients and 3 (10%) patients treated with hemodialysis; p value 0.0346. Mitral stenosis had 1 (1.67%) kidney transplant patients and 4 (13.33%) patients treated with hemodialysis; p value 0.0407. Aortic stenosis had 1 (1.67%) kidney transplant patients and 2 (6.67%) patients treated with hemodialysis; p value 0.2567.

**CONCLUSION:** We find statistically significant differences in the frequency of valvular heart disease between kidney transplant patients and patients treated with hemodialysis.

**RECEIVED:**

March 25, 2015

**ACCEPTED:**

April 20, 2015

