

THROMBOSIS AND THROMBOPHLEBITIS OF THE OUTFLOW VEIN AFTER FISTULA LIGATION

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Objectives: Thrombosis and more rarely thrombophlebitis of the outflow vein are the most common complications after the fistula (AVF) ligation. However, no data exist in literature about the prevalence and risk factors associated with these complications. We aimed to evaluate these AVF-related complications either in patient with functional kidney transplant, or in hemodialysis patients who underwent AVF ligation.

Methods: A retrospective study was performed on all consecutive patients, aged > 18 years, requiring AVF ligation in our centre from January 2011 to December 2014. Among them, 11 patients with functional kidney transplant, who underwent AVF ligation as request by transplantation centre, and 8 hemodialysis patients requiring AVF ligation because of venous hypertension (5 patients) or the AVF dysfunction (3 patients). Surgical ligation of the outflow vein, in the juxta-anastomotic segment, was performed in all patients. An elastic bandage and heparin therapy in the post intervention period were prescribed. Mean follow up was 14 ± 3 days.

Results: Nineteen patients (11 male and 8 female), mean age 60 ± 4 years, underwent AVF ligation. Eleven patients with a functional kidney transplant (TRx-group) and 8 patients on hemodialysis (HD-group). The runoff vein thrombosis up to the first confluent vein was observed in all patients. The painful thrombosis, accompanied with oedema and thrombophlebitis were most common AVF-related complications in kidney graft recipients, but not in hemodialysis patients, respectively in the 82% (9/11) of the TRx-group, and in no patients (0/8) of the HD-group ($p < 0.001$). There were no significant differences between the two groups in mean age, sex, duration of uremia, antiplatelet drugs; but obviously only TRx-group received Immunosuppressive therapy.

Conclusions: Thrombophlebitis was virtually absent in the hemodialysis patients after the AVF ligation (Fig.1), while is most common, and an overlooked AVF-related complication, in patient with functional kidney transplant (Fig.2). The immunosuppressive drugs could be a risk factors.



Figure 1. AVF ligation in a HD patient



Figure 2. a TRx patient AVF ligation in

