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MESOGLYCAN AS ADD-ON THERAPY TO ASPIRIN DIMINISHES HEMODIALYSIS ACCESS GRAFT THROMBOSIS

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Background: The most common complication of hemodialysis (HD) access graft is thrombosis. Mesoglycan is purified glycosaminoglycan, an extractive mucopolysaccharide complex of heparan sulfate and dermatan sulfate, with antithrombotic and profibrinolytic properties. Add-on therapy of mesoglycan to low-dose aspirin was assessed to prevent this serious complication.

Methods: A prospective study in which 24 patients on chronic HD whose vascular accesses were grafts were divided into two groups: group A (n = 12, 50%) consisted of patients who receive low-dose aspirin (80mg/day) after graft creation for 12 months, and group B (n = 12, 50%) received mesoglycan (100 mg/day) in addition to low-dose aspirin from 2 days after surgery onwards for same period. Both groups were not different according to age, gender, cause of renal failure, hematocrit levels, platelet counts and Kt/V. All patients' thrombotic episodes were followed up from the day of graft surgery until thrombosis was diagnosed. Finally, the patient survival difference between both groups was determined.

Results: Eleven thrombotic episodes were diagnosed in group A while one event was reported in group B ($p < 0.001$). Graft access days of patency were significantly longer in group B compared to group A (380.8 ± 170 vs. 90.1 ± 57.2 , $p < 0.001$). Time that elapsed from dialysis initiation to graft creation was not different (group A 18 ± 12 days, group B 20 ± 10 days). Days on HD were different between both groups (group A 208.9 ± 97.2 vs. group B 313.2 ± 127.0 , $p < 0.001$). Major bleeding events were not reported.

Conclusion: Mesoglycan add-on therapy to low-dose aspirin significantly decreased thrombotic graft episodes. Patients on mesoglycon plus aspirin had a prolonged vascular access patency, longer time on HD and better survival than patients on aspirin alone.

Keywords: graft thrombosis, mesoglycan