

“...clinical efficacy and safety of the early use of urokinase in the prevention and treatment on tunneled hemodialysis catheter related fibrin sheaths” Li et al (2014).

Reference:

Li, X.T., Liu, D., Wang, Y.B., Wang, M., Zhang, J. and Guo, Y. (2014) Efficacy and safety of early use of urokinase for prevention and treatment of tunneled hemodialysis catheter-related fibrin sheaths. Nan Fang Yi Ke Da Xue Xue Bao. 34(11), p.1668-71. .

Abstract:

OBJECTIVE: To explore the clinical efficacy and safety of the early use of urokinase in the prevention and treatment on tunneled hemodialysis catheter related fibrin sheaths.

METHODS: Thirty-eight hemodialysis patients with tunneled central venous catheter and good catheter function were randomly divided into experimental group and control group. Urokinase was given after 3 days of indwelling catheter in the experimental group and after the onset of catheter dysfunction in the control group. The catheter function, mean blood flow and venous pressure of dialysis, coagulation, and side effects in the two groups were observed for 6 months.

RESULTS: The rates of catheter dysfunction on the arterial side were 0.65% and 2.71% in the experimental group and control group, respectively ($P < 0.05$), with catheter dysfunction rates on the vein side of 0.92% and 2.41%, respectively ($P < 0.05$). Catheter dysfunction occurred for the first time at 87.9 ± 24.1 days in the experimental group, and at 31.3 ± 11.5 days in the control group ($P < 0.05$). The mean blood flow showed no significant difference between the two groups at 1 month after tube insertion ($P > 0.05$), but was higher in the experimental group at 3 and 6 months after the tube insertion ($P < 0.05$). The mean venous pressure in two groups was similar 1 and 3 months after tube insertion ($P > 0.05$), but was significantly lower in the experimental group at 6 months ($P < 0.05$). Compared with control group, the experimental group showed significantly prolonged prothrombin time ($P < 0.05$) but similar rest coagulation parameters. No serious drug-related side effects occurred in these two groups.

CONCLUSION: Early use of urokinase is safe and effective for prevention and treatment of tunneled hemodialysis catheter-related fibrin sheaths with minimal side effects.

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