

Clinical aspects of Arteriovenous Fistula use in a haemodialysis population

Results based on retrospective and interventional studies

When a patient suffers from end stage renal disease, the vascular access becomes the life-line to perform regular hemodialysis (HD) treatment. The recommended first choice is the surgically created native Arterio-Venous Fistula (AVF). The AVF patency is limited due to stenosis, aneurysm and infection. The effect of access complications is uremia progress, which jeopardizes patient survival. The overall aim of this thesis was to evaluate risk factors that cause AVF complications and to analyze interventions that might prevent AVF dysfunction.

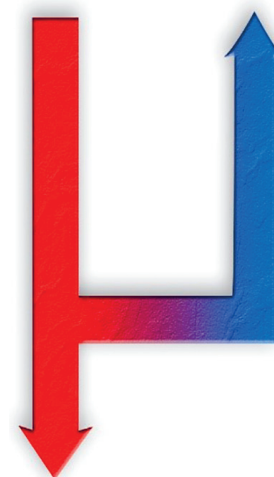
This thesis consists of four studies. The first aimed to evaluate the effect of one single treatment with FIR of the AVF in 30 patients. Far Infrared illumination (FIR) is a non-recognized method used by few centers in an attempt to improve AVF flow. FIR increased the blood velocity of the AVF and the diameter of the arterialized vein increased. Besides radiological interventions, the need for other non-invasive treatment options such as FIR light may improve the maturation and patency of the AVF. The other three studies were based on retrospective interventional and medical data from two centres during nine years. The aim was to find clinical and medical riskfactors to predict AVF dysfunction. To further improve AVF patency, strategies concerning patient selection, anemia treatment and glycemic control are future options for preventing AVF complications.



Anna Wärme received her graduation as MD from Gothenburg University in 2003. She is a specialist in Nephrology/Internal Medicine in the Dept. of Nephrology in Skövde, Skaraborg Hospital. Her doctoral thesis is based on patients in Haemodialysis and their use of AV Fistula access.

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**SAHLGRENKA ACADEMY
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