

# Maturation of arteriovenous fistula in dialysis patients with diabetes

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## Introduction

Patients with diabetes have a high risk of developing Peripheral Vascular Diseases. As a result, their arteriovenous fistula (AVF) requires more time for maturation, and they have a high risk of AVF failure and repeated surgical intervention.

## Objectives

Study of (AVF) maturation features for patients with diabetes.

## Methods

All patients of our dialysis centre were divided into two groups: 86 non-diabetics and 23 diabetics. The groups were compared by AVF maturation.

## Results

The average AVF maturation time was 5 weeks for all patients, this time was needed for 79% of non-diabetics and 28% of diabetics. The AVF maturation took up to 4 weeks in 4% of diabetics and 44% of non-diabetics, 4-6 weeks in 14% of diabetics and 35% of non-diabetics and > 6 weeks in 82% of diabetics and 21% of non-diabetics. (Fig.1)

Surgical correction of AVF was required in the first day after the surgery in 9% of diabetics and in 3% of non-diabetics, within a year in 64% of diabetics and 17% of non-diabetics. AVF was not reconstructed within two years in 27% of diabetics and 80% of non-diabetics. (Fig.2)

## Conclusion

An individual approach to diabetic patients is extremely important: it is necessary to plan AVF creation before the beginning of treatment; to make a thorough pre-surgical examination; to inspect AVF more frequently after surgery; to carry out individual patient training. Moreover, nurses should pay special attention to first cannulations and haemostasis. Together, this makes it possible to provide an AVF that functions over the long term; this may improve patients' quality of life.

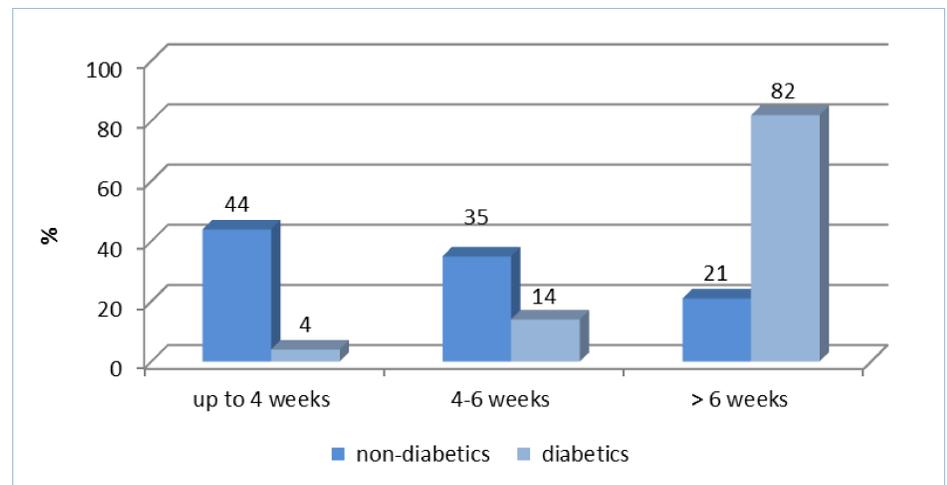


Figure 1: AVF maturation time

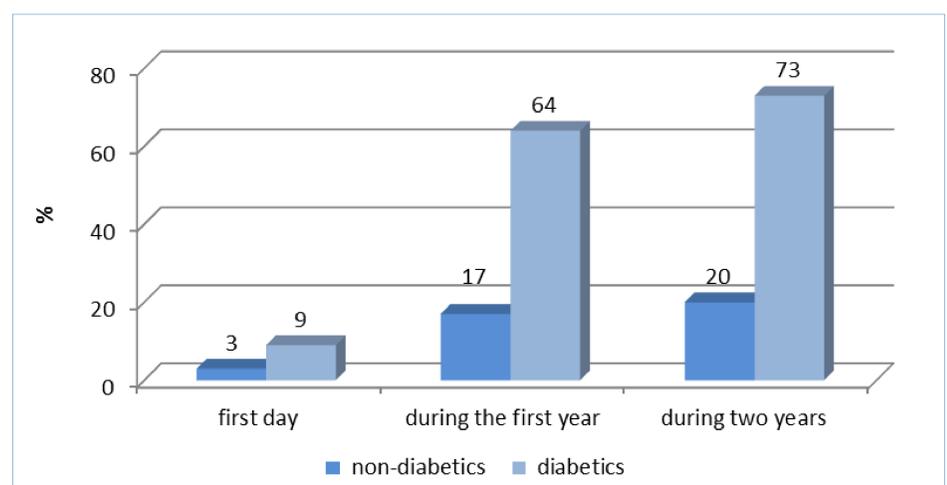


Figure 2: Frequency of surgical correction



Figure 3: Predialysis examination of AVF