

# Elevated dynamic venous pressure values: a marker of complications in vascular access?

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## Introduction

The most common complications associated with a vascular access are stenotic vascular lesions (venous stenosis, arterial stenosis), thrombosis, infection, aneurysm and extremity ischemia (KDOQI, 2006).

Asymptomatic, but haemodynamically significant stenosis are usually detected by means of a systematic monitoring and surveillance programme.

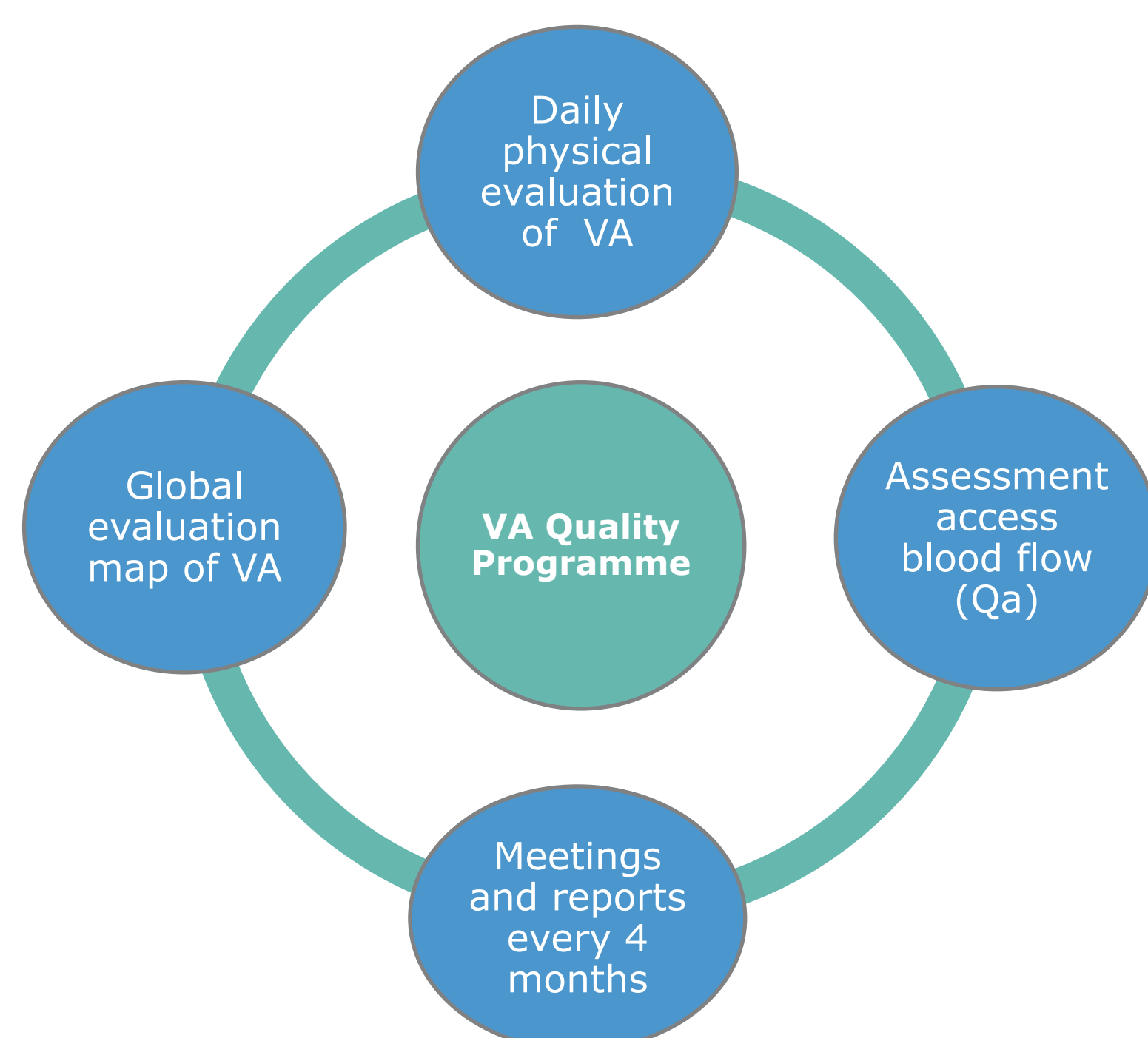
## Objectives

- To understand the relevance of dynamic venous pressure evaluation in arteriovenous fistula (AVF) and arteriovenous graft (AVG);
- To understand the relation between dynamic venous pressure values in AVF and AVG before angiography and the angiographic findings.

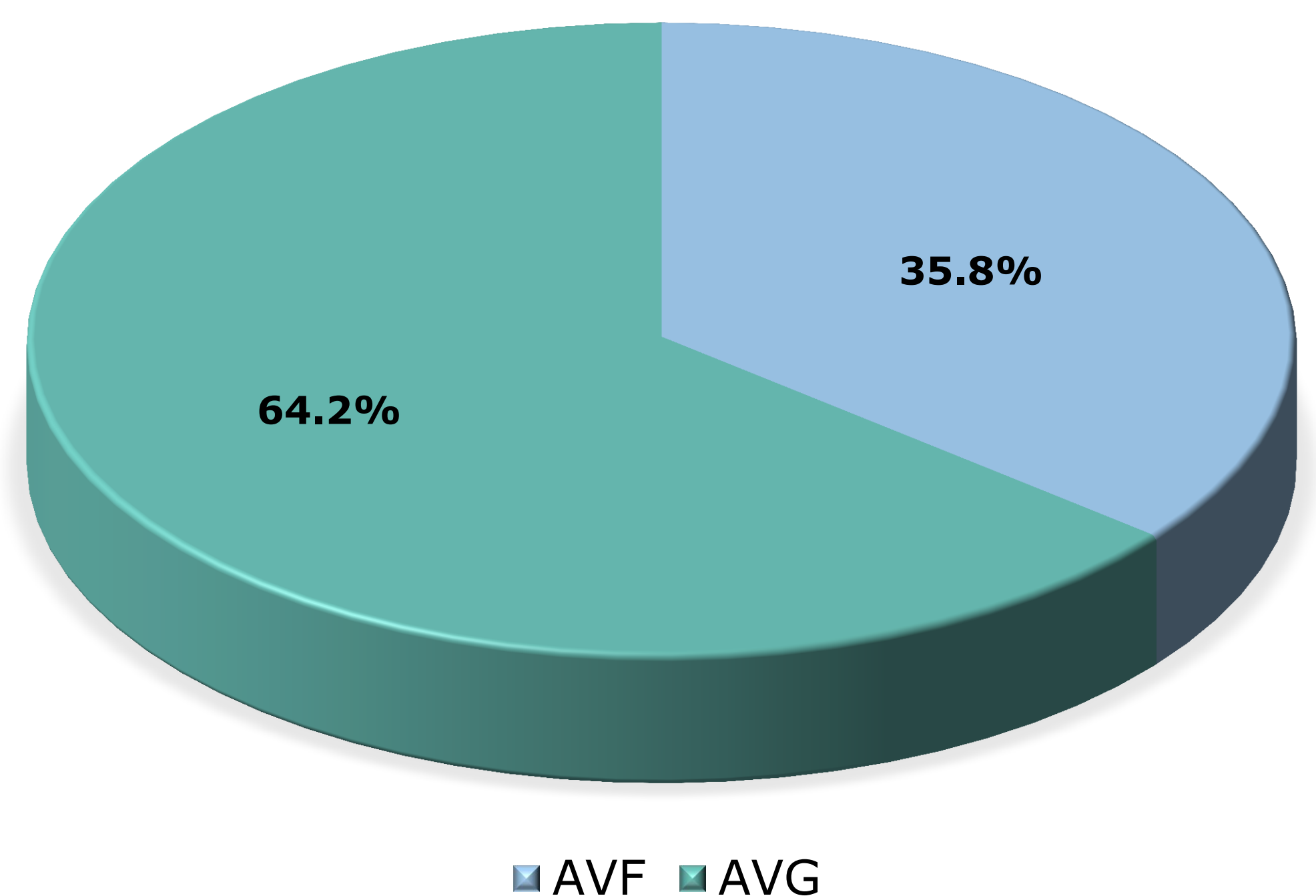
## Methods

This is a descriptive retrospective study.

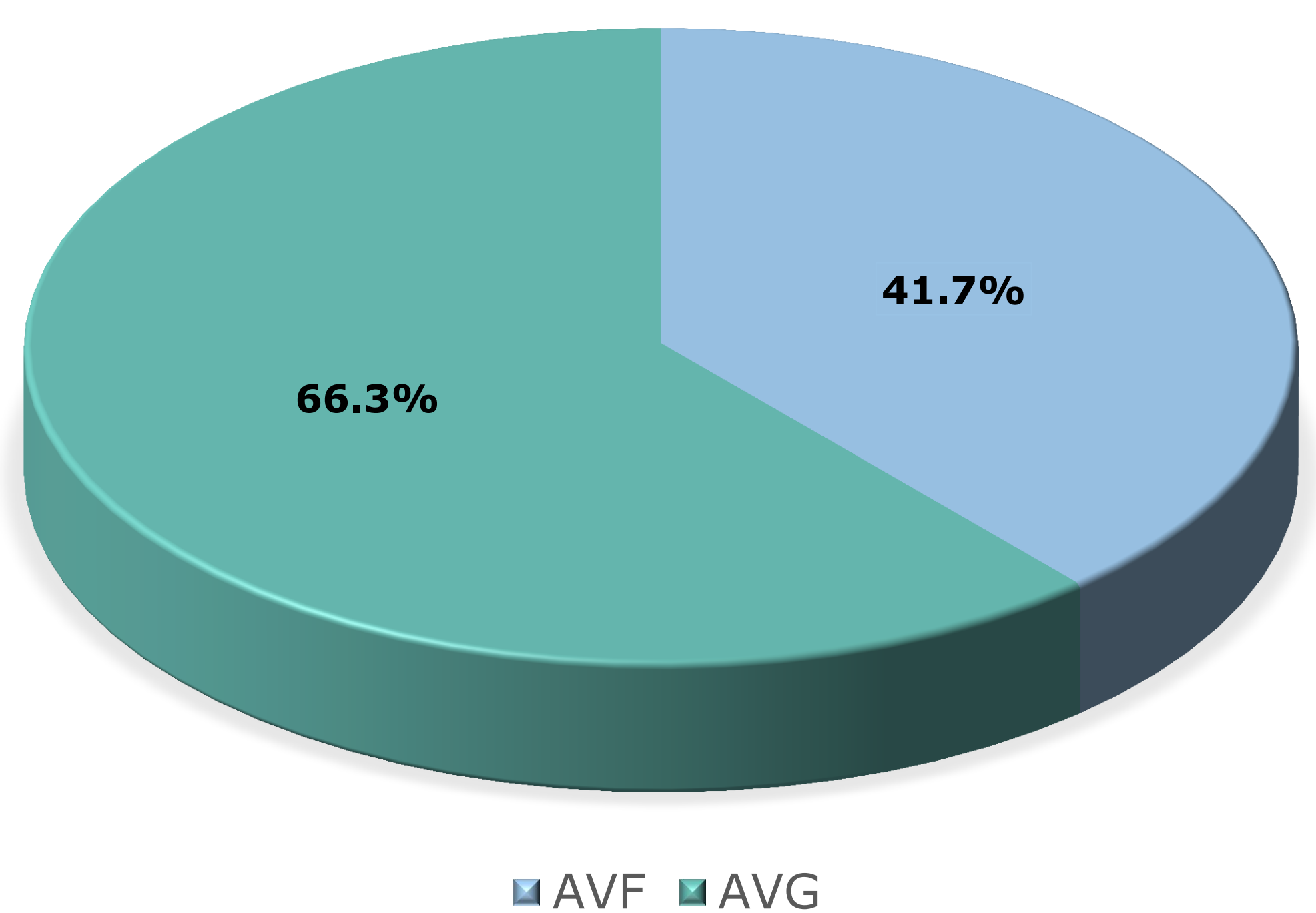
We assessed dynamic venous pressure data during access flow (Qa) evaluation before angiographic interventions that identify stenosis which were performed between January 1, 2015 and December 31, 2016.



**Figure 1 :** Design of the VA quality programme



**Graph 1:** Analysis of interventions in AVF and AVG.



**Graph 2:** Values of dynamic venous pressure > 100 mmHg in AVF and AVG.

## Results

We analysed 134 interventions: 64.2% AVG and 35.8% AVF.

Values of dynamic venous pressure > 100 mmHg in 66.3% of AVG and in 41.7% of AVF.

We can verify that the AVG were the most intervened accesses and that they had more values of dynamic venous pressure > 100 mmHg.

## Conclusions

We conclude that the evaluation of dynamic venous pressure possibly helps us:

- to prevent serious complications in vascular accesses.
- to reduce the rate of thrombosis by early detection and correction of stenosis to increase life expectancy of vascular access and promoting better quality of life for patients.

## References

- 1.KDOQI (2006). *Updates Clinical Practice and Guidelines Recommendations*. National Kidney Foundation.
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- 3.Fazendeiro, J. et al (2011). *Manual de Acessos Vasculares*.Fresenius Medical Care, 2011.