

DO HEMODIALYSIS PATIENTS USING VENOUS CATHETER NEED A DIFFERENT NUTRITIONAL APPROACH?

C. Garagarza¹, A. Valente¹, C. Caetano¹, T. Oliveira¹, P. Ponce², A. Silva²

¹ Fresenius Medical Care, Nutrition, Lisbon, Portugal

² Fresenius Medical Care, Nephrology, Lisbon, Portugal

Cristina Garagarza: cgaragarza@hotmail.com; +351 91 005 20 86

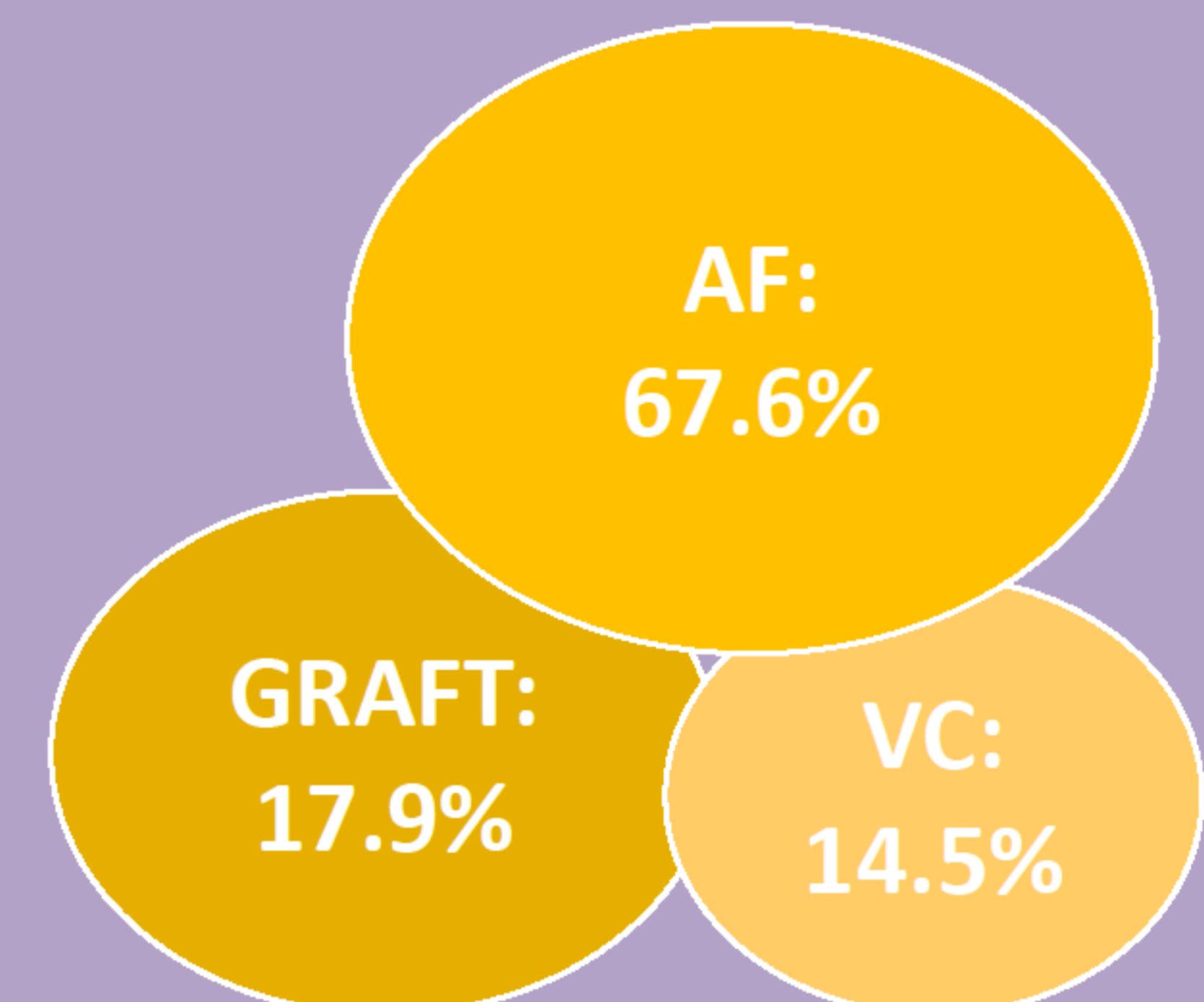
1. Introduction and Aim

Poor clinical outcomes in maintenance hemodialysis (HD) patients with venous catheter have been reported. On the other hand, both lower prevalence of inflammatory markers and infection rates in patients with arteriovenous fistula have been described. However, the association between vascular accesses and nutritional status has been less investigated. The aim of this study was to investigate the relationship between vascular access, nutritional status and body composition, assessed through bioimpedance spectroscopy (BCM®).

2. Methods

- ❑ Transversal multicenter study with 3758 maintenance HD patients.
- ❑ Patients were divided into 3 groups depending on the type of vascular access:
 - ❖ 2522 patients had arteriovenous fistula (AF);
 - ❖ 670 graft;
 - ❖ 541 venous catheter (VC).
- ❑ One-way ANOVA analysis was performed and a p<0.05 was considered significant.

Vascular access:



3. Results

Baseline patients' characteristics	
N	3758
Age (years) ¹	69.8±14.6
Female (%)	42.8
Diabetics (%)	30.8
HD vintage (months) ¹	76.6±60.3

¹Values are presented as mean±SD.

	Vascular Access			p
	Arteriovenous Fistula	Venous Catheter	Graft	
Age (years)	68.7±14.8	73.8±13.6	71.7±13.4	<0.001
Kt/V	1.7±0.4	1.6±0.4	1.8±0.4	<0.001
Urea Reduction Ratio	79.9±6.3	77.3±7.9	81.3±6.0	<0.001
Hemoglobin (g/dl)	11.6±1.2	11.3±1.6	11.4±1.3	<0.001
Albumin (g/dl)	4.0±0.4	3.8±0.5	3.9±0.4	<0.001
nPCR (g/Kg/d)	1.1±0.3	1.0±0.3	1.1±0.3	<0.001
C-Reactive Protein (mg/l)	13.9±36.1	19.3±39.8	12.9±24.6	0.036
Creatinine (mg/dl)	8.1±2.4	7.2±2.3	7.5±2.2	<0.001
Total Cholesterol (mg/dl)	180.6±45.2	168.7±41.8	187.4±48.1	<0.001
Lean Tissue Index (Kg/m ²)	12.4±3.0	10.8±3.0	11.5±2.9	<0.001
Fat Tissue Index (Kg/m ²)	13.0±5.5	15.1±6.8	14.3±5.9	<0.001
Body Cell Mass Index (Kg/m ²)	6.7±2.1	5.5±2.1	6.1±2.1	<0.001

Values are presented as mean±SD.
nPCR – normalized protein catabolic rate

4. Conclusion

According to these data, HD patients with VC presented higher inflammatory markers and worst nutritional status parameters. Therefore, these patients may need a different nutritional approach in order to improve their nutritional status.

