UREMIC FOOT: A SILENT KILLER AMONG DIALYZED PATIENTS

Andreana De Mauri, Doriana Chiarinotti, Carlo Edoardo Ruva, Federica Capurro, Paola David and Martino De Leo

Nephrology and Dialysis Department, University Hospital "Maggiore della Carità", Novara, Italy

INTRODUCTION AND AIMS

Foot ulceration (FU) and lower limb amputation, also defined "**uremic foot syndrome**", is a common complication affecting Hemodialyzed patients (HDpts). Its prevalence is higher than in diabetic not-HDpts. It is due to diabetes, inflammation and vascular calcifications.

Uremic foot affects the quality of life, the mortality rate and the costs of health care.

AIM

The aim of our retrospective study is to evaluate the prevalence of uremic foot among HDpts afferent to our Centre.

PATIENTS AND METHODS

ENROLLMENT: prevalent and incident HDpts, from January 2006 to December 2011, receiving three-weekly HD for at least 3 months at the "Maggiore della Carità" Hospital in Novara and followed until December 2012.

RESULTS

Characteristics of patients

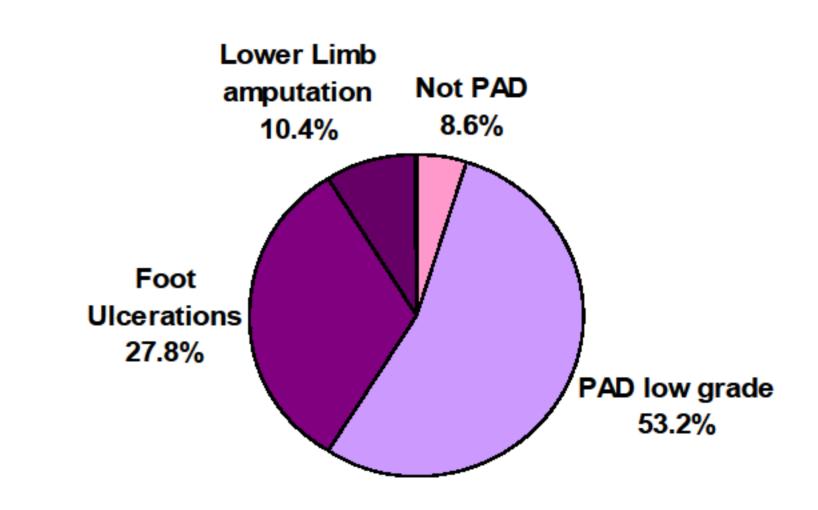
Number of patients	316
Male	206 (65.2%)
Female	110 (34.8%)
Age (years±sd)	67±14
Months of HD (months±sd)	71.6±80.3
Prevalence of diabetes	101 (32.6%)
Prevalence of ischemic heart disease	136 (43%)
Percutaneous transluminal angioplasty	37 (11.8%)
Previous surgical revascularization	25 (8%)
Peripheral Artery Disease	168(53.2%)
Chronic foot ulceration	88 (27.8%)
Lower limb amputation	33 (10.4%)
Causes of death	144 (45.5%)
Ischemic heart disease	32 (22.4%)
Peripheral Artery Disease	23 (16.4%)
Cachessia	23 (16.1%)
Infection	6 (6.2%)
Neoplasia	27 (14.2%)
Others	4 (3.8%)

Comparison between HDpts with and without Uremic Foot

	Uremic Foot	Not Uremic Foot	р
	88(27.8%)	228(72.2%)	
Age (years±sd)	73±9	64±16	0.001
Months of HD (months±ds)	79±96	68±72	NS
Diabetes	57 (56.4%)	45 (21.2%)	<0.0001
Ischemic cardiac disease	71 (70.3%)	63 (29.7%)	<0.0001
Previous revascularization	14 (14%)	11 (5.2%)	0.02
Lower limb amputation	27(26.5%)	2 (0.9%)	<0.0001
PTH (pg/ml)	226±153	199±153	NS
Status			<0.0001
Alive	22 (21%)	102 (42.5%)	
Deceased	78(75.2%)	69 (32.2%)	
Transplanted	1 (0.8%)	39 (18.4%)	

Uremic foot prevalence in diabetic and not-diabetic pts

	Diabetic pts 101 (32.6%)	Not Diabetic pts 215 (72.2%)	p
Chronic foot ulceration	57 (55.9%)	44 (20.8%)	0.02
Lower limb amputation	21(20.6%)	8 (3.8%)	<0.0001



CONCLUSIONS

- The "uremic foot" is a common complication among HDpts (PAD 53%, foot ulceration 28%, lower limb amputation 10%) and represents the second cause of death after heart disease.
- More efforts are required to diagnose and treat the uremic foot, because it is associated with very high direct and indirect costs and with life threatening outcomes.





