

Macrovascular complications and risk factors: coexistence in patients with diabetic foot and their role in pathogenesis and severity

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Introduction: Macrovascular complications and risk factors, such as hypertension, dyslipidaemia, in addition to Peripheral Arterial Disease (PAD) that constitutes sovereign factor in aetiology of the diabetic foot, all these also affect in the development of the diabetic foot. **Aim:** The detection of coexistence and the relation of macrovascular complications and risk factors in the pathogenesis and severity of diabetic foot. **Patients and Methods:** We included 256 patients (171 males, 85 females) with diabetic foot. We have complete data concerning 250 of them, aged 65.31±10.25 years, mean HbA_{1c} 8.65±1.7%, diabetes duration 15.84±9.2 years, 32% of them being active smokers. We recorded the underlying reason of the lesion is taken and examined patients for neuropathy and PAD (by means of NDS, VPT, ABI). Dyslipidaemia was observed in 29.3% (68/232) of our patients, while 79.4 % had hypertension. In 40.2%, there was known coronary heart disease (CHD), while 10.6% had a history of stroke. **Results:** Overall, 87 (34%) of our patients had neuropathic lesion, 34 (13.3%) purely ischaemic and 120 (46.9%) neuroischaemic lesions. CHD was correlated with the pathogenesis of the diabetic foot (p<0.002), as 60.4% of our patients with CHD had neuroischaemic lesions, 16.7% ischaemic lesions and only 22.9% neuropathic lesions. There was no correlation with the severity of diabetic foot (p=0.086). Hypertension was not associated with does pathogenesis and the severity of the lesion (p<0.133 and p<0.577, respectively). Dyslipidaemia was not correlated with the pathogenesis or with severity of lesions (p<0.413 and p<0.218, respectively). Heart failure was related to pathogenesis (p<0.018): indeed, 66% of patients with heart failure had neuroischaemic lesions and 13.2% of them purely ischaemic. However, there was no correlation with the severity of diabetic foot (p<0.751). The history of stroke was not associated with pathogenesis or severity of the diabetic foot (p<0.910 and p<0.434, respectively). Finally, the duration of smoking was related with type of lesion (p<0.001).

Conclusions: These findings underline the coexistence of macrovascular complications, hypertension, dyslipidaemia and smoking in patients with diabetic foot, as well as their role in pathogenesis. This holds especially true for those with ischaemic lesions.