

INTRODUCTION

Peripheral Arterial Disease (PAD) occurs mainly as a result of systemic atherosclerosis.¹ One of the major risk factors for developing PAD is diabetes. Diabetics are 5 to 10 times more likely to develop atherosclerosis.² Diabetic patients suffering from PAD are at an increased risk of lower extremity amputations due to poor wound healing of infected foot ulcers.³ In the presence of both PAD and diabetes, the risk of lower limb amputation increases by 7 to 15 times when compared to non-diabetic patients.⁴

AIMS

To assess the degree of PAD and the presence or absence of diabetes in a group of patients admitted for lower limb debridement or amputation procedures at Mater Dei Hospital, Malta.

METHOD

The medical history was compiled for a group of patients admitted at Mater Dei Hospital over a 6 month period. Social and demographic data for these patients was noted. The presence and severity of PAD was determined by Ankle Brachial Pressure Indices and results from spectral waveform analysis.

RESULTS

A total of 50 patients were included (33 male, 17 female). The mean age of these patients was 68 years (range: 28-92 years). Thirty-nine patients were admitted for a transmetatarsal amputation. The remaining 6 patients were admitted for a debridement procedure.

The average HbA1c level for this group of patients was 8% (range: 5-14%).

The majority of patients (n= 35) had Type 2 diabetes whilst 14 patients had Type 1 diabetes (Figure 1).

Thirty patients had an ulcer whilst 20 patients were suffering from gangrene.

Thirty-five of these patients suffered from severe PAD (Figure 2).

When the severity of PAD was compared to diabetes, there was a positive correlation (p= 0.02) between the presence of diabetes and the severity of PAD. The majority of patients (n= 23) who had severe PAD suffered from Type 2 diabetes.

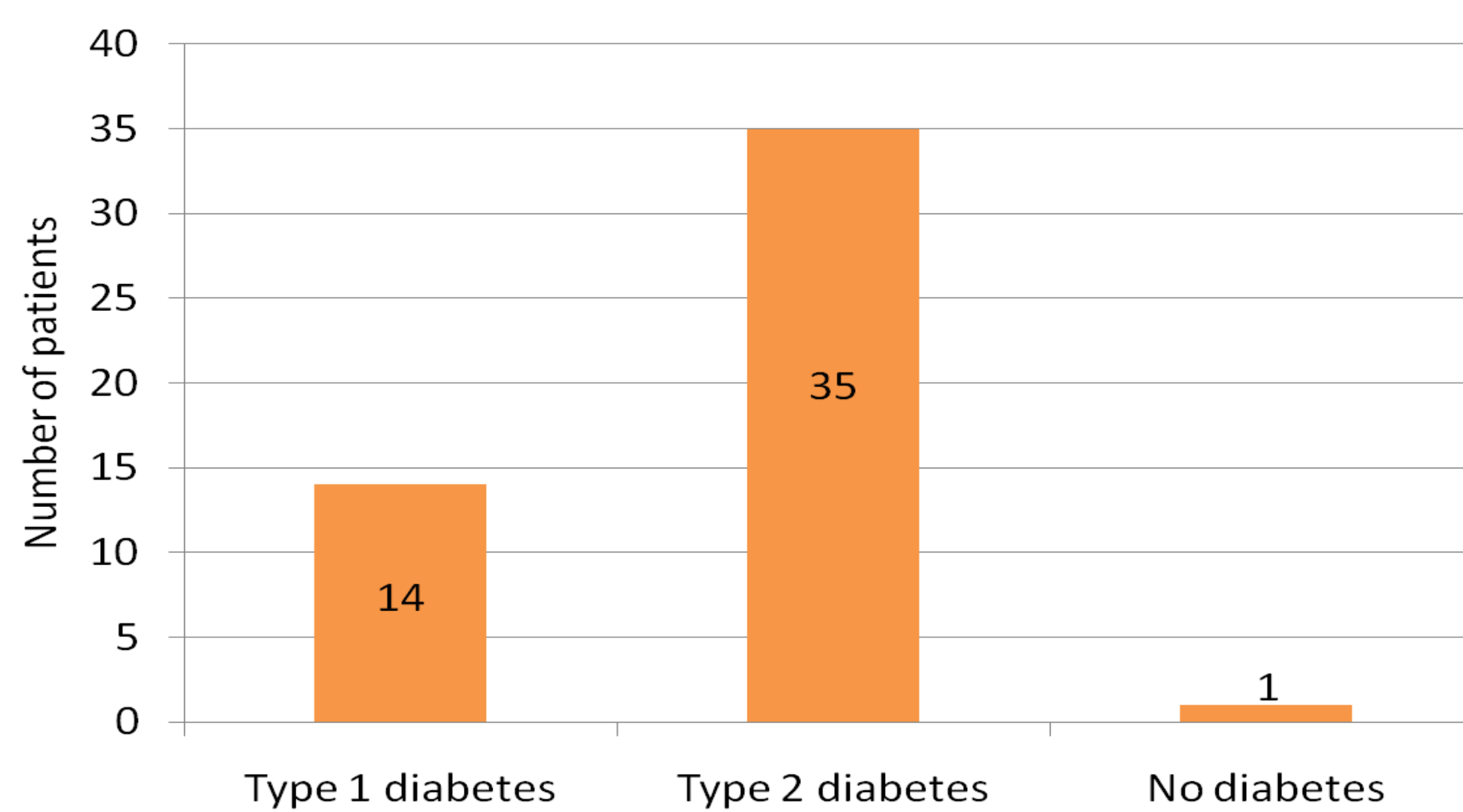


Figure 1: Type of diabetes (n= 50)

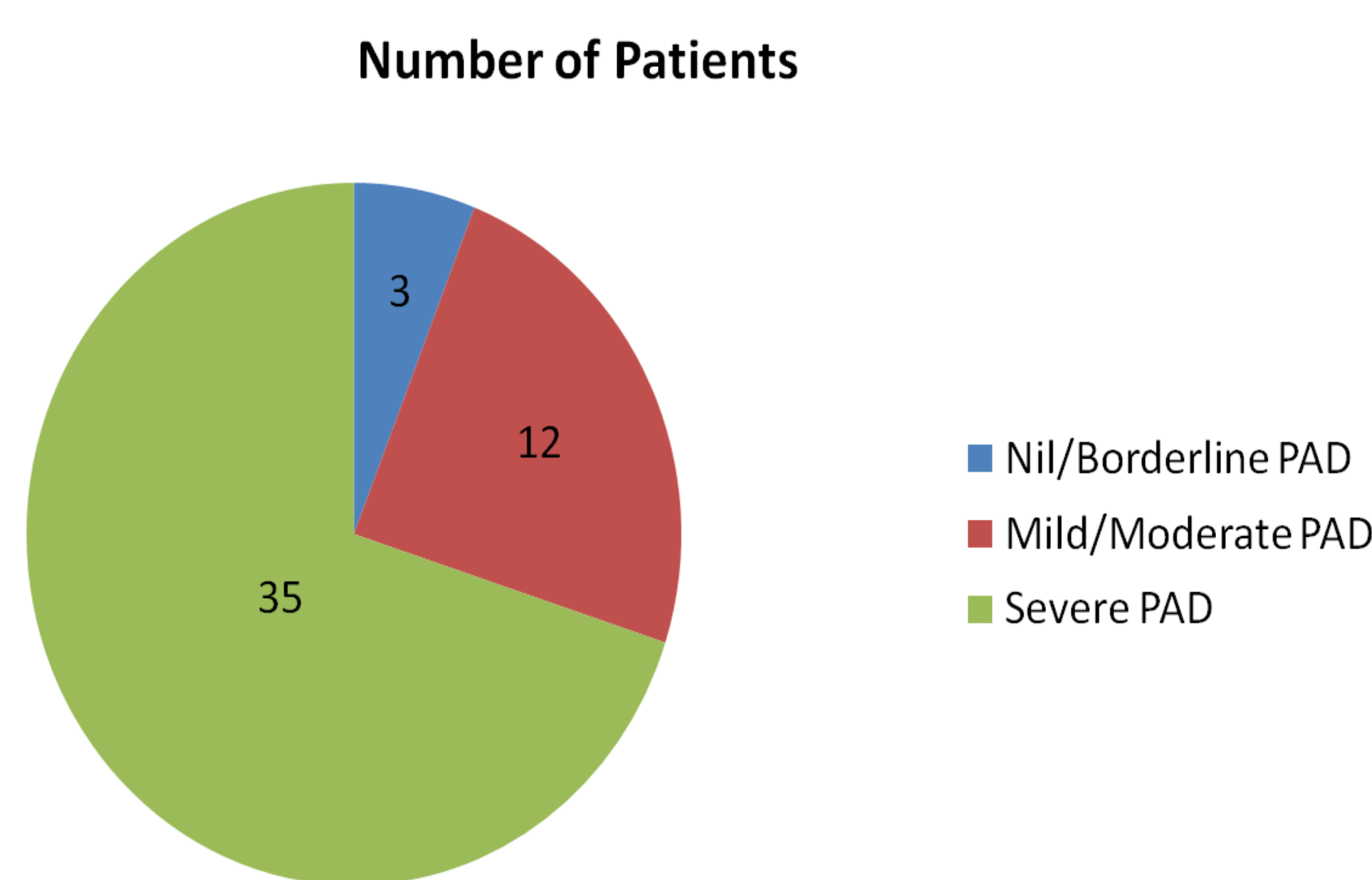


Figure 2: Type of PAD (n= 50)

CONCLUSION

The presence of PAD and diabetes are major risk factors for lower limb amputations in this group of patients. Close monitoring and control of glycaemic levels is strongly recommended in patients being both diabetics and sufferers of PAD.

Further work aims to identify risk factors leading to the need of lower limb amputations and establishing better dosing schedules of antibiotics to treat developing foot infections in these patients.

References

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