

Pharmacological Management of Hypertension in Diabetic Patients

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INTRODUCTION

The 2007 'Guidelines for the Management of Arterial Hypertension' and 'Guidelines on diabetes, pre-diabetes and cardiovascular diseases' issued by the European Society of Hypertension (ESH) and European Society of Cardiology (ESC) recommend angiotensin converting enzyme (ACE) inhibitors or angiotensin II receptor antagonists (ARBs) as first line treatment for hypertension in patients with diabetes mellitus.^{1,2}

METHOD

A data collection form (DCF) to gather information regarding current prescribed medications, medication history, co-morbidities and laboratory investigations was developed and validated. 125 patient files were selected by convenience sampling, according to established inclusion criteria (patients diagnosed with type 2 diabetes mellitus and co-existing hypertension, speak English and > 18 years), and reviewed over a 4-week period. Treatment prescribed was compared with the management stated in the European guidelines and documented in the DCF. Descriptive statistics were undertaken.

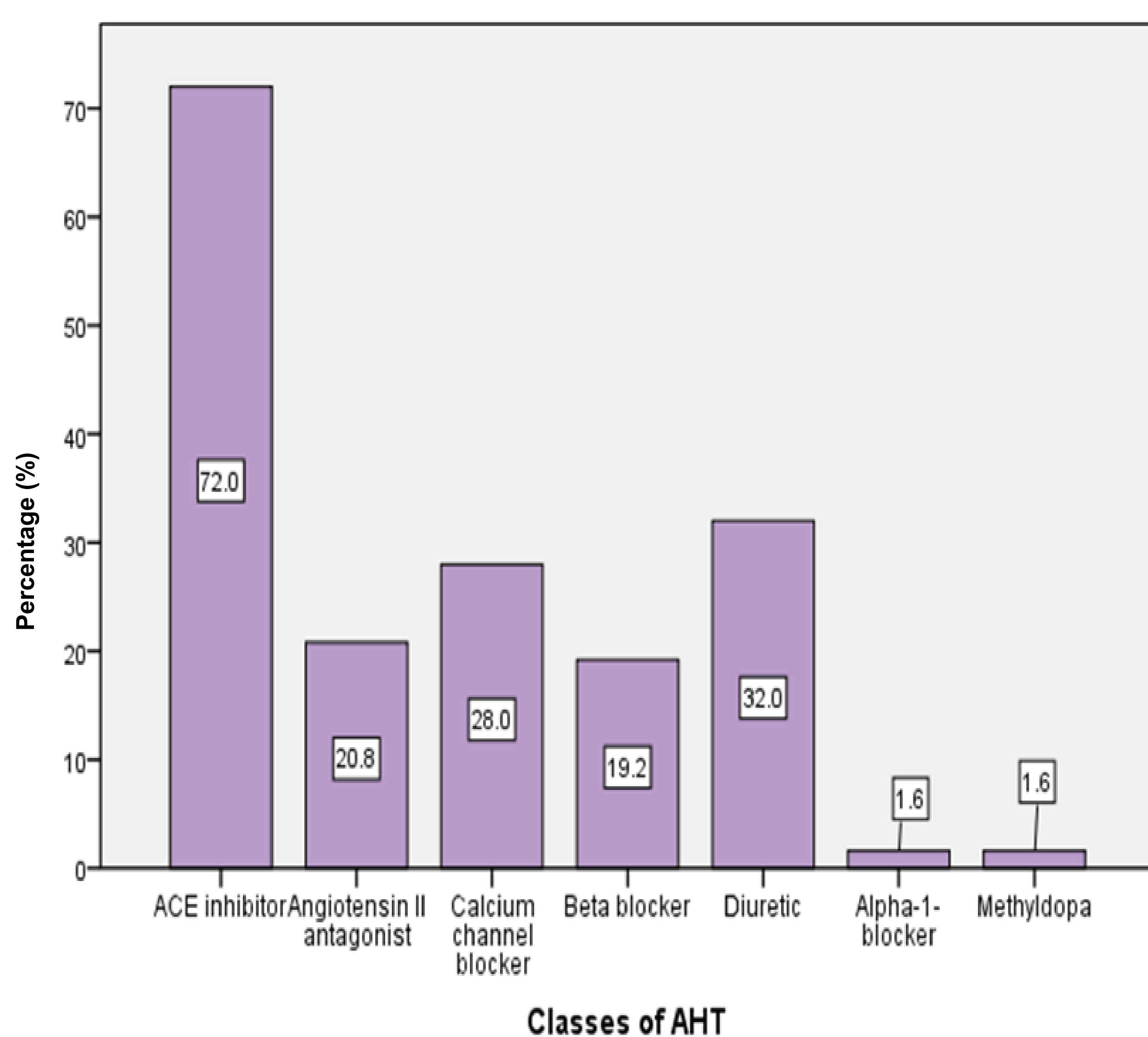
AIM

The aim of this audit was to determine whether first line pharmacological management of hypertension in diabetic patients at the Diabetes and Endocrine Centre, Mater Dei Hospital (MDH) in Malta is in accordance with European guidelines.

RESULTS

Antihypertensive treatment was divided into 7 types (Figure 1), with ACE inhibitors being the most commonly prescribed (72%), followed by diuretics (32%). The majority of the patients (93%) were on ACE inhibitor or ARB therapy in accordance with guidelines. The most frequently prescribed ACE inhibitor was perindopril (61%), followed by enalapril (37%). The most frequently prescribed ARB was valsartan (89%), followed by losartan (11%). Only nine patients were not on either an ACE inhibitor or an ARB. There was a justified reason in 8 of these patients, which was an elevated potassium and/or creatinine level.

Figure 1: Type of Antihypertensive Treatment (N=125)



With regards to other drugs for hypertension, 32% of the patients were on 1 or more diuretics (50% bendroflumethiazide and 43% on bumetanide), 28% of the patients were on a calcium channel blocker (all on amlodipine) and 19% of patients were on a beta-blocker, predominantly atenolol (88%).

Most of the patients (53%) received only 1 drug for hypertension, 24% of the patients were managed with a combination of 2 drugs, while the remaining 23% of the patients are managed with a combination of 3 to 5 drugs. The most commonly prescribed combination was an ACE inhibitor with a diuretic.

CONCLUSION

First line pharmacological management of hypertension in diabetic patients at MDH in Malta was in accordance with European guidelines for the majority of patients assessed in this audit.

References

1. The Task Force for the Management of Arterial Hypertension of the ESH and of the ESC. 2007 Guidelines for the Management of Arterial Hypertension. *Eur Heart J.* 2007; 28: 1462-1536.
2. The Task Force for the Management of Arterial Hypertension of the ESH and of the ESC. Guidelines on Diabetes, Pre-Diabetes and Cardiovascular Diseases: Executive Summary. *Eur Heart J.* 2007; 28 (1) : 88-136.