

*Case Report***PHARMACO-THERAPEUTICAL ADHERENCE OF HYPERTENSIVE PATIENT****Nabila Abdus Salam¹, Sonia Imtiaz¹, Muhammad Riaz²**

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ABSTRACT

The aim of present study is to evaluate the patient adherence and effect of combination therapy for the management of hypertension. A case study was evaluated to ascertain whether combination therapy to treat hypertension is rational or not. The basic goal in this therapy is to reduce blood pressure, to normalize the heart beat of concerned patient, to improve her health status along with prevention of other cardiac problem like stroke, myocardial infarction and heart failure. A combination of β - blocker & calcium channel blocker was administered to patient. It is concluded that in given case study patient adherence and combination therapy of β - blocker & calcium channel blocker were rational & thus have more prominent effect in management of HTN, Tachycardia and in improving the patient quality of life.

Keywords: hypertension (HTN), amlodipine, metoprolol.

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INTRODUCTION

Hypertension is elevation of blood pressure than the normal value [1]. Hypertension basically classified in two types; one is primary hypertension and other is secondary hypertension [2]. In case of primary hypertension, cause is unknown that's why it is known as idiopathic hypertension and 90 to 95 % cases are presented with this type while in case of secondary hypertension cause is known [3]. metoprolol is a selective beta blocker [4] and has intrinsic sympathomimetic activity [5]. It controls the tachycardia by blocking beta receptors in heart [4]. Amlodipine is a calcium channel blocker that acts on L-type of channel in heart and block them [1] by reducing the force of contraction, hence it has negative inotropic effect. [6] prevalence of hypertension varies from country to country and depends upon the different factor, almost 43 million people suffers from hypertension in America which includes 25% of adults [2] while in Pakistan 59.46% obese and 45% non obese person are target of hypertension [7]. A study shows that prevalence of hypertension is 2% in urban and 20% in rural area of Asia [8]. HTN is a major cause of other life threatening cardiac problems if left untreated.

CASE STUDY

The Patient was 49 year old lady that suffers from severe headache, increase in heart rate and exertion. Upon monitoring blood pressure of patient was high. Mrs. S is a non smoker, non alcoholic and house wife. Mrs. S has no familial history of HTN diabetes and she is also non diabetic. She often uses mefenamic acid tablet for management of headache that was not prescribed by any physician. Upon checkup she complains of increase in heart beat. Dr. recommended her amlodipine tablet 5mg daily and metoprolol tablet 50mg daily. Dr. advised her to take these medications daily on proper time. She was council to take these medications with plain water. She was also advised to go for walk daily for 30 minute as walk will help to control the weight and stable her by building her stamina. Dietary plan was focused on intake of fruits, vegetables, legumes, cereals, whole grain and low calories intake as it will improve her fitness as well as helps to control her blood pressure [1]. Patient is guided to monitor her blood pressure daily to check for efficacy of drug in case of HTN She used take the prescribed medication daily on proper time and told to Dr. on next visit that she feels better now. Especially her heart beat is in normal now after taking metoprolol tablet.

RESULTS AND DISCUSSION

The basic goal in this therapy is to reduce blood pressure, to normalize the heart beat of concerned patient, to improve her health status along with prevention of other cardiac problem like stroke, myocardial infarction and heart failure [9]. A combination therapy is more effective in treating the HTN as compared to an monotherapy. In a combination therapy additive effect of 2 drugs has more good results as compared to a single drug in treating HTN [10]. β - blocker have intrinsic sympathomimetic activity[5] and calcium channel blocker has negative inotropic effect[6][11]. Literature review shows that β -blocker were used as first line treatment for HTN so to prove this, different studies were conducted and results were controversial[12]. Choice of a drug depends upon the therapeutic potential to resolve relevant problem [9] of patient.

Different types of Calcium channel blocker were used in treatment of HTN, angina pectoris, cardiac arrhythmias [11]. Amlodipine act on peripheral vascular system and reduces the peripheral vascular resistance hence it is effective in reducing the blood pressure of patient [1]. Metoprolol is a selective β -blocker that acts on β -1 heart and reduces its rate so it is effective in treating the tachycardia [13]. In a combination therapy as compared to monotherapy results are more prominent for antihypertensive therapy due to additive effect of drugs when they are combining with other member of antihypertensive drugs to obtain the desire therapeutic benefits [10].

After finding the patient adherence toward a drug regimens and other instruction given to patient, it is proved that this combination of drug therapy for treating hypertension is effective as it has resolves the patient current issue of HTN and improves her health status.

CONCLUSION

Both; patient adherence and combination therapy have better results while managing the HTN and Tachycardia. That improves patient's quality of life. Hence; pharmacotherapeutically it is a rational treatment to control the hypertensive.

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