Original Research

Comparison of the Efficacy and Safety of Fixed-dose S-Amlodipine/Telmisartan and Telmisartan in Hypertensive Patients Inadequately Controlled with Telmisartan: A Randomized, Double-blind, Multicenter Study

Chang Gyu Park, MD, PhD[1]; Tae Hun Ahn, MD, PhD[2]; Eun Ju Cho, MD, PhD[3]; Won Kim, MD, PhD[4]; Hyung Seob Kim, MD, PhD[5]; Ju Yeong Yang, MD, PhD[6]; Jae Geun Ryu, MD, PhD[7]; Cheol Ho Kim, MD, PhD[8]; Min Soo Hyeon, MD, PhD[9]; Seung Je Tak, MD, PhD[10]; Se Jung Im, MD, PhD[11]; Jong Won Ha, MD, PhD[11]; Wook Beom Pyeon, MD, PhD[12]; Je Geon Jae, MD, PhD[13]; Gyu Rok Han, MD, PhD[14]; Jun Hyung Doh, MD, PhD[15]; Sang Wook Im, MD, PhD[16]; and Myeong Muk Lee, MD, PhD[17]

[1]Cardiology Division, Korea University Guro Hospital, Seoul, Korea; [2]Gachon University Gil Medical Center, Seoul, Korea; [3]The Catholic University of Korea, St. Paul's Hospital, Seoul, Korea; [4]KyungHee University Medical Center, Seoul, Korea; [5]Keimyung University Dongsan Medical Center, Daegu, Korea; [6]National Health Insurance Service Ilsan Hospital, Ilsan, Korea; [7]Daegu Catholic University Medical Center, Daegul, Korea; [8]Seoul National University Bundang Hospital, Bundang, Korea; [9]Soon Chun Hyang University Hospital, Seoul, Korea; [10]Ajou University Hospital, Suwon, Korea; [11]Yonsei University, Seoul, Korea; [12]Ewha Womans University, Seoul, Korea; [13]Chonbuk National University, Jeonju, Korea; [14]Hallym University, Kangdong Sacred Heart Hospital, Seoul, Korea; [15]Inje University, Ilsan Paik Hospital, Gyeonggi-do, South Korea; [16]CHA University Bundang Medical Center, Bundang, Korea; and [17]Sejong Hospital, Bucheon, Korea

ABSTRACT

Purpose: The objective of this study was to evaluate the efficacy and safety of the fixed-dose combination S-amlodipine plus telmisartan (S-AM/TEL) compared with TEL monotherapy in patients with hypertension inadequately controlled by TEL monotherapy.

Methods: this study was a randomized, multicenter, double-blind, parallel group, Phase III, 8-week clinical trial to compare the superiority of the S-AM/TEL 2.5/40-mg and S-AM/TEL 5/40-mg combinations with TEL 80-mg mono-therapy. The primary end point was the change in the mean sitting diastolic blood pressure from baseline (week 0) after 8 weeks of therapy between treatment groups.

Findings: Of 325 patients screened, 183 were randomly assigned to 3 groups (61 in the S-AM/TEL 2.5/40-mg group, 60 in the S-AM/TEL 5/40-mg group, and 62 in the TEL 80-mg group). Mean (SD) age was 53.9 (7.5) years, and male patients comprised 87%. No significant differences were found among the 3 groups in baseline characteristics. The primary end points, the changes of mean (SD) diastolic blood pressure at week 8 from the baseline were −10.56 (7.23) mm Hg in the S-AM/TEL

Accepted for publication September 20, 2016.
http://dx.doi.org/10.1016/j.clinthera.2016.09.006
0149-2918/$ - see front matter

© 2016 Published by Elsevier HS Journals, Inc.

Scan the QR Code with your phone to obtain FREE ACCESS to the articles featured in the Clinical Therapeutics topical updates or text GS2C65 to 64842. To scan QR Codes your phone must have a QR Code reader installed.

2.5/40-mg group, −12.32 (9.23) mm Hg in the S-AM/TEL 5/40-mg group, and −2.44 (7.92) mm Hg in the TEL 80-mg group. Both the S-AM/TEL 2.5/40-mg group and the S-AM/TEL 5/40-mg group had a statistically superior hypotensive effect compared with the TEL 80-mg group ($P < 0.0001$ for both). For evaluation of the safety profile, the frequencies of adverse events (AEs) among the groups were also not significantly different (S-AM/TEL 2.5/40-mg group, 18.6%; S-AM/TEL 5/40-mg group, 20%; and TEL 80-mg group, 22.6%), and the incidences of AEs were not different among the groups. The most common AEs were respiratory disorders, followed by headache, dizziness, and peripheral edema.

Implications: Treatment with S-AM/TEL 2.5/40 mg and S-AM/TEL 5/40 mg was superior to increasing the TEL dose in terms of hypotensive effect in patients with hypertension inadequately controlled by TEL monotherapy. S-AM/TEL fixed-dose combinations are an effective and tolerable option for patients inadequately responding to TEL monotherapy and also a good option for improving patients' medication adherence. ClinicalTrials.gov identifier: NCT011426100. (*Clin Ther*. 2016;38:2185–2194)
© 2016 Published by Elsevier HS Journals, Inc.

Key words: hypertension, S-amlodipine, telmisartan, single-pill combination, blood pressure, fixed-dose combinations.

INTRODUCTION

Hypertension is a chronic disease caused by the interactions among genetic factors, obesity, drinking, smoking, stress, aging, lack of physical activity, and high salt intake that leads to serious complications, such as cerebrovascular diseases, heart diseases, renal failure, and arteriosclerosis. Hypertension accounts for 35% of cerebrovascular diseases and 21% of ischemic heart diseases, suggesting the importance of hypertension management because it means that 35% of cerebrovascular diseases and 21% of ischemic heart diseases are preventable if normal blood pressure (BP) could be maintained in the population.[1,2]

In the hypertension guidelines of various countries, including Korea, the recommended target BP for the treatment of hypertension is below 140/90 mm Hg for all hypertensive patients without other risk factors or below 130/80 mm Hg for high-risk patients with cerebrovascular diseases, myocardial infarction, albuminuria, or other risk factors.[3–5] There are roughly 2 types of hypertension management: lifestyle modification and pharmacotherapy. Lifestyle modification is the foundation of hypertension treatment because it is effective for strengthening the effect of hypotensive agents and preventing cardiovascular diseases or other complications from risk factors and lowering BP. However, lifestyle modification alone is often not enough to reach a target BP, which is the reason that pharmacotherapy is required in most cases, and pharmacotherapy should be determined based on the severity of hypertension, risk factors, target organ damage, and underlying clinical conditions.[1]

Proper BP control at an early stage is essential for high-risk patients with hypertension. Hypertension is not easily controlled with only a single agent unless it is mild, and dual combination therapy is recommended from the first for patients with stage 2 or higher hypertension or for high-risk patients.[4]

The synergistic effect of dual combination therapy provides not only the hypotensive activity but also a better prevention of complications of hypertension. In addition, concomitant use of drugs with different mechanisms of action can offset the potential adverse effects (AEs) of each drug. In this context, various types of fixed-dose combinations have recently been developed and used, revealing improved patient adherence with their convenient regimen.[6]

Currently, diuretics, calcium channel blockers (CCBs), β-blockers, angiotensin-converting enzyme inhibitors (ACEIs), and angiotensin receptor blockers (ARBs) are widely used as antihypertensive drugs. The 2007 European Society of Hypertension/European Society of Cardiology guidelines for the management of hypertension introduced combination therapies with ACEIs and ARBs, such as ACEI/diuretic, ARB/diuretic, CCB/ARB, and CCB/ACEI, which are superior to other combination therapies. The ARB/CCB combination is particularly recommended as an effective hypotensive combination because ARB relieves the cause of peripheral edema, the major AE of CCB, reducing CCB-related peripheral edema.[1,4]

S-AM besylate is one of CCBs that contains active isomer of amlodipine besylate, which was approved for hypertension, fixed coronary artery stenosis (stable angina), or myocardial ischemia caused by coronary vasospasm and vasoconstriction (variant angina). S-AM besylate produces the hypotensive effect at least equivalent to half the dose of previous amlodipine besylate, and the reduced dose is also beneficial for

Download English Version:

https://daneshyari.com/en/article/5554196

Download Persian Version:

https://daneshyari.com/article/5554196

Daneshyari.com