Future of cardiovascular medicine and therapeutics: Change for revolution.

Abdullah Alabdulgader*

Prince Sultan Cardiac Center, Riyadh, Saudi Arabia

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Introduction

Toward the end of the second decay of the 21st century cardiovascular diseases are still rank first cause of death across planet nations. In spite of the explosive scientific advances of the 20th century and after, it is now conspicuous that sincere call for wisdom is highly needed. A major change in the methodology and basic understanding and execution of medical research is a must. The medical and pharmaceutical industry should have no connection or contribution to medical research in the new era. Devout and ascetic scientific groups representing the world nations should act as anew union to establish the new pillars for cardiovascular practice and research. Journal of Cardiovascular Medicine and Therapeutics is committed to dispersing unique and top-level original research articles, letters, perspectives, opinions, commentaries, case reports, reviews, letter to editor, editorials, and short communications etc. in every aspect of cardiovascular medicine.

The segment Cardiovascular Therapeutics is additionally concerned with the identification and validation of biomarkers to either help drug improvement, or permit a stratified medicine approach in patients. Biomarkers may identify with physiological measures, heredity qualities, or any of the developing advancements.

Safety and efficacy of left atrial appendage closure in non-valvular atrial fibrillation patients with peripheral arterial disease.

It is well-known that non-valvular atrial fibrillation (NVAF) shares lots of risk factors with PAD, such as obesity, hypertension, diabetes, heart failure and so on. Previous studies have shown that the prevalence of PAD in NVAF ranges from 2.9% to 21% [1-3]. Concomitant PAD in NVAF may increase the risk of stroke [3]. Actually, PAD are significant predictors of thromboembolism and mortality in subjects with NVAF [3]. Left atrial appendage closure (LAAC) has been developed as an alternative treatment to oral anticoagulation (OAC) for stroke prevention in NVAF patients in whom OAC therapy is ineffective or contraindicated [4]. To date, the study about LAAC in NVAF patients with PAD is limited. This study was aimed to investigate the safety and efficacy of LAAC in this special population.

Peri-procedural and post-procedure major adverse events based on the Munich consensus document [5] were recorded, including death, stroke/transient ischemic attack (TIA), systemic embolism, device embolization, DRT, peri-device leaks and bleeding. In this study, thromboembolism event included ischemic stroke, TIA, systemic embolism. Additionally, major bleeding, fatal bleeding and hemorrhagic stroke were regarded as severe bleeding. Procedure efficacy to prevent thromboembolism was tested by comparing the actual event rate with the estimated thromboembolism rate adjusted for warfarin use per year by the CHA2DS2-VASc score [6]. Procedure safety to reduce severe bleeding event was assessed by comparing the actual event rate with the estimated severe bleeding rate among those taking warfarin only per year by the HAS-BLED score [7]

Conclusion

In summary, LAAC was a safe procedure with similar procedural success rate in NVAF patients with PAD and without PAD. Although the thromboembolism risk was higher in PAD group, thromboembolism rate after LAAC was similar between groups. Compared with warfarin, LAAC was associated with a lower risk of thromboembolism as well as severe bleeding in NVAF patients with PAD during follow-up.

Limitation

Our study is a non-randomized, retrospective, observational, small-size sample, single centered study. The major limitation for estimating the overall value of LAAC is the lack of a control group and using only an estimated thromboembolism or bleeding risk score for analysis. The number of patients in each group was unequal. Besides, not all the patients received.

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***Correspondence to:**

Abdullah Alabdulgader
Prince Sultan Cardiac
Center, Riyadh, Saudi Arabia
Tel: 009665592398
E-mail: kidsechoder@yahoo.com