Review

The increased burden of cardiovascular disease in South Asian communities

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Abstract

This article highlights the increased burden of cardiovascular disease (CVD) in South Asian communities. South Asians are at a significantly higher risk of developing CVD due to a higher prevalence of traditional risk factors such as high blood pressure, high cholesterol, and obesity. In addition, high levels of insulin resistance and metabolic dysfunction in this population may contribute to their higher risk of developing CVD. Despite the increased burden of CVD in South Asian communities, there is a lack of research and public health interventions targeting this population. The need for culturally tailored public health interventions and education on CVD is emphasised to address the increased burden of CVD in South Asian communities. Community-based programs, involving community leaders and cultural organisations, can educate the community on the importance of CVD and guide them on the importance of screening and risk factor management. The article highlights the importance of addressing this pressing public health issue in the South Asian community

Abbreviations

CVD - cardiovascular disease

Introduction

Cardiovascular disease (CVD) poses a significant public health issue affecting millions of people worldwide, accounting for a substantial number of global deaths in 2019 - with South Asian communities being particularly vulnerable to this condition. "An estimated 17.9 million people died from CVDs."[1] This article aims to review the available evidence on the link between South Asian communities and cardiac disease and emphasises the need for targeted public health interventions. By doing so, it seeks to shed light on the underlying mechanisms contributing to the increased burden of CVD in this population and advocate for targeted public health measures.

Prevalence of CVD in South Asian communities

Research from McKeigue et al (1989) indicates that the South Asian community is at a significantly higher risk of developing cardiac disease compared to other populations in the UK. Mortality from CVD in South Asians is 1.5 times that of the general population.[2] Prevalence studies have shown that South Asians exhibit a higher incidence of traditional risk factors for CVD, such as high blood pressure, high cholesterol and obesity. A cohort study conducted in 2006 by Pursnani and Merchant, with a 10-year follow-up, demonstrated that after adjusting for traditional risk factors, South Asians are associated with an increased risk of coronary heart disease outcomes compared to other ethnic groups.[3] South Asians suffer up to a 50% higher CVD mortality rate compared to indigenous white Europeans in the UK.[4,5] Furthermore, the prevalence of cardiovascular disease in people aged 55 years and above was found to be highest in Pakistani men (35.1%) and Indian women (14.7%).[6] These findings highlight the increased burden of CVD in South Asian communities and call for a closer examination of the underlying mechanisms.

Possible explanations for the increased burden

A study published in Diabetes Care in 2013 found that South Asians had a higher prevalence of insulin resistance compared to individuals of European descent.[7] Insulin resistance has been identified as a

potential contributing factor to the increased risk of CVD among South Asians. The figure below shows a simplified model of insulin resistance at a cellular level. Understanding alternative mechanisms and evaluating available evidence can provide valuable insights into the increased burden of CVD in South Asian communities.

Interventions and public health measures

To strengthen the discussion on interventions to reduce the prevalence of CVD, it is important to provide clear statements about the methodology and presentation of results, where relevant. Drawing on recent research papers or journal articles can offer supporting evidence for these interventions.[9] Culturally tailored public health interventions are of utmost importance in addressing the increased burden of cardiac disease in South Asian communities. These interventions should be specifically designed to cater to the needs and beliefs of the community. Involving community leaders and cultural organisations can help provide culturally sensitive information and increase adherence to interventions.[10] Exploring the government's current efforts and future goals in addressing this issue can provide stronger statistics, emphasising the necessity to increase the number of public health interventions and research to combat the elevated risk of CVD in South Asian communities.[3]

Conclusion

In conclusion, South Asian communities face a significantly higher risk of developing cardiac disease compared to other populations, with factors such as insulin resistance potentially contributing to this increased burden. To address this pressing issue, it is crucial to undertake targeted public health interventions and research efforts.

To enhance the quality and impact of this article, some improvements can be implemented. The article could benefit from addressing specific factors that influence the prevalence of CVD in South Asian communities, such as the role of food, lifestyle and genetic factors. Expanding the scope of the study to explore the prevalence of CVD in various age groups within South Asian communities, rather than focusing solely on individuals aged 55 and above, would provide a more comprehensive understanding of the issue.

Lastly, a stronger and more cohesive conclusion can be established by emphasising the connection between why South Asian communities are more prone to CVD and why increasing the number of public health interventions and research is crucial to addressing this problem.

By incorporating these suggested improvements, this article can provide a more comprehensive analysis of the prevalence of CVD in South Asian communities and contribute to the development of effective strategies to combat this issue.

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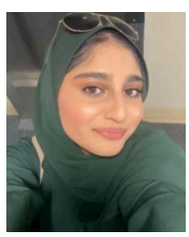

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My name is Malaika and I am a third year medical student the University of Plymouth. My journey into medicine was inspired by my personal experiences and my unwavering determination to make a positive impact on people's lives. My primary interests lie in cardiology and paediatrics.

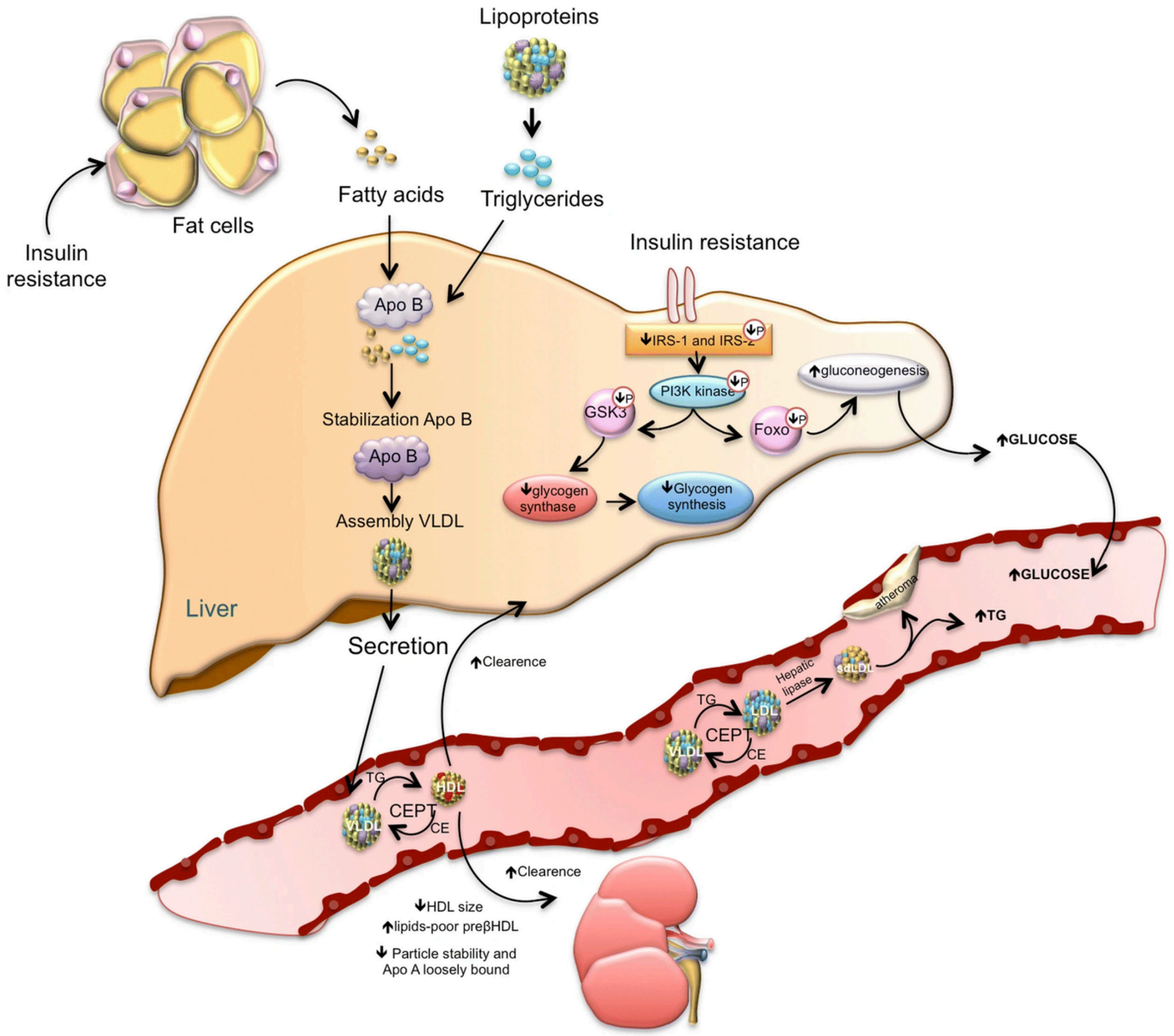

Figure 1. A simplified model of insulin resistance reprinted from Ormazabal et al (2018)[8]