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RISK FACTORS OF HYPERTENSION IN THE SOUTH ASIAN POPULATION

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Relevance. Findings reveal that hypertension among South Asians are more significantly affected by central obesity, dietary factors, low physical activity, socio-economic factors and prehypertension. However little significance is given to these factors in European literature making it difficult to identify the true prevalence of hypertension among South Asian populations.

Aim: to explore risk factors that significantly contribute to the rising levels of hypertension specifically within the South Asian (SA) region as opposed to those affecting the European regions.

Materials and methods. Literature from the databases Google Scholar and PubMed (key words: “risk factors”, “hypertension”, “waist circumference”, “central obesity”, “South Asian phenotype”, and “caste”), were analyzed over the period 2015-2025.

Results and their discussion. The SA Phenotype commonly known as skinny fat, is a term used to describe the SA or Indian phenotype with high body fat, normal body weight and low muscle mass. Hills et al.(2018) characterizes skinny fat as having a higher waist to hip ratio and higher abdominal fat; both of which are associated with higher risk of hypertension. Mohammad and Bansod (2024) found that in India hypertension was higher among men and women with higher waist circumference (> 94 cm and 80 cm respectively). Zhou et al.(2024) finds that waist to hip ratio was highest in South Asia for both sexes and positively associated with hypertension.

The South Asian diet is a unique cuisine that predominantly involves refined carbohydrates (white rice, white flour, white bread), saturated fats (ghee, coconut oil) and high salt intake. Ghimire et al (2021) found that SA salt intake was twice that recommended by WHO, with Bangladesh having the highest salt intake. Evan et al. (2021) noted low serum potassium concentration, vegetable and protein intake in rural India. Charitha Koneru et al. (2023) compared 5 SA countries with non-SA countries to find that South Asians consumed lower intakes of fruits and vegetables. All these factors were positively associated with higher risk of developing Hypertension

Additionally South Asians typically live a more sedentary lifestyle and rarely engage in physical exercise such as going to the gym or engaging in sports. Gamage and Seniviratne (2021) compared the physical activity between senior officers and managerial assistants in Sri Lanka, and found that 54.4% senior officers and 30% managerial assistants were physically inactive. This is indicative that urbanisation and increase in the working sector within the SA region may be a contributing factor to the decreased physical activity and associated increased hypertension.

In the socio-economic aspect, studies find that caste and religious backgrounds, poor education and high income was positively associated with higher risk of hypertension. Mohammed and Bansod (2024) found that the prevalence of hypertension was 22.4% among Hindu's and 21.2% in Muslims and higher in people belonging to other religions (28.4%) or no-caste or tribe persons (24.9%).

Finally prehypertension which is a precursor to hypertension, is a commonly present condition among South Asians which is rarely diagnosed due to lack of routine screening. Rahut et al. (2023) compared the prevalence of prehypertension between India, Nepal and Bangladesh, and found India to have the highest percentage of prehypertension in all age groups 18-49. Khanam et al. (2015) further states that prehypertension is an independent risk factor for cardiovascular, cerebrovascular and chronic kidney disease hence further research may be beneficial to mitigate such diseases in countries with high prevalence of prehypertension.

Conclusion. Knowledge on the specific risk factors that contribute to increased hypertensive cases within the South Asian region would be beneficial when diagnosing and recommending treatment for hypertensive patients in the region