

Preterm birth — A novel risk factor of ischaemic heart disease and stroke

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Madam, preterm birth (PTB) is classified as having a gestational age of fewer than 37 weeks; annually, approximately 15 million infants are born preterm worldwide.¹ Major risk factors of PTB include placenta previa, foetal distress, maternal thyroid disease, and maternal asthma.² Both teenage (<20 years) and advanced age (>35 years) mothers carry an increased risk of giving birth prematurely.² Previous studies have shown a positive correlation between PTB and numerous disorders, including hypertension, diabetes mellitus, and hyperlipidaemia.³

Mounting evidence suggests PTB is a significant risk factor for ischaemic heart disease (IHD) and stroke. However, due to prior discrepant findings, there is a possibility that these associations might be spurious. However, recent literature surfaced two cohorts by Crump et al. in 2019⁴ and 2021.³ In 2019, compiled data from 2,141,709 participants over 43 years, and preterm babies were found to have a significantly higher risk of developing IHD in the future (aHR: 1.44 [1.19-1.73]).⁴ Moreover, the incidence of IHD was more prevalent among preterm-born men than preterm-born women.⁴ The 2021 cohort evaluated the frequency of stroke with PTB. It concluded that PTB was associated with higher risks of both haemorrhagic stroke (aHR: 1.15 [0.97-1.35]) and ischaemic stroke (aHR: 1.31 [1.07-1.60]), compared with full-term birth.³

These results are worrisome for Pakistan since it has a high tally of PTB cases, as highlighted by a 2017 study by Hanif et al., which showed a 21.64% prevalence of PTB among 1691 females.² These preterm infants have an increased likelihood of acquiring IHD and Stroke coupled

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with the already established diseases including hypertension, diabetes, and hyperlipidaemia later in life, which exacerbates the already high disease burden in Pakistan. Moreover, unaware of the medicines' cost-effectiveness, medical practitioners commonly prescribe expensive popular generics for treating IHD,⁵ which inflicts a substantial financial burden on these patients. Hence, paediatricians should be advised to follow up with preterm babies regularly assess their progress, educate mothers about the risk factors of PTB and minimize the chances of them showing up down the line by emphasizing proper diet, regular exercise, and abstinence from smoking. Nationwide campaigns and awareness drives are a few ways the general population could be made aware of PTB and its threat to the health of these children in the future.

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