**[‘One body, two hearts’](https://www.dawn.com/news/1727122/one-body-two-hearts)**

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“CONGRATULATIONS! You are pregnant!” This was exciting news for 27-year-old Ayesha (not her real name), who could not wait to share it with her husband and family members. It was her first pregnancy, and she was eagerly looking forward to the birth of her child.

Ayesha was booked for antenatal visits. Antenatal checkups are routinely carried out for every pregnant mother three to four times during the entire duration of her pregnancy, to assess the health of both the mother and her baby. In July 2022, Unicef figures showed that South Asia (including Pakistan), in stark contrast with the industrialised countries, showed the lowest level of antenatal care — and that barely half of the pregnant women in the region received antenatal care.

During one of her routine antenatal visits, Ayesha was diagnosed with ‘pregnancy-induced hypertension’, or what is commonly known as PIH. She was too young to have this disease, and many questions floated in her mind, about herself and her baby and what adversities future events might hold.

Pregnancy-induced hypertension is defined as high blood pressure in pregnant women, detected after 20 weeks of gestation, and a sustained blood pressure of more than140mmHg systolic and 90mmHG (or above) diastolic. A population-level analysis in 2019 has shown the prevalence of PIH in 9.3 per cent of pregnant women in Pakistan. It is a condition that is associated with higher maternal mortality and morbidity (complications).

Untreated PIH can lead to the death of the mother and her unborn baby.

The complications include pre-eclampsia that presents itself as high blood pressure, protein in the urine and signs of organ damage. There are also more severe conditions, such as eclampsia, when because of very high blood pressure, the expecting mother suffers neurological complications that can include seizures and even coma. Untreated, it can lead to the death of both the mother and her unborn baby.

With early diagnosis, PIH is treatable. Women develop this condition because of the many changes happening within their body during pregnancy. Once the diagnosis is confirmed, they are required to have medical treatment to lower their blood pressure and prevent complications from arising.

They may recover completely after giving birth or they may continue to have the problem after delivery — chronic high blood pressure, recurrence of PIH in future pregnancies, and developing early cardiovascular disease. Long-term surveillance is advised for these patients to identify whether they are recovering or their condition is persisting. The surveillance is best done by a physician, with active follow-up from the patient.

Pregnancy is a stress test of a mother’s heart. When a woman is pregnant, her heart must work 20pc to 30pc more to fulfil her body’s needs. Her heart rate increases and so does her heart function, especially in the last three months of pregnancy. A healthy heart can tolerate these changes without compromising the health of the mother or child.

However, when the mother already has heart disease or develops a cardiovascular condition during pregnancy, such as PIH, the game changes. The heart, then, struggles to perform well at the expense of the health of the mother and child. Therefore, the key to good outcomes is early diagnosis during routine antenatal checkups by primary obstetricians, and early referral to cardiovascular experts. These women may need to be taken care of in health facilities where maternal and newborn child emergency care is available.

Dr Pamela S. Douglas, a professor of cardiology at Duke University in the US, has noted: “It is important that in the cardiovascular risk assessment of women, a history of any past pregnancy-related complications like PIH or gestational diabetes should be noted as these conditions pose a sex-specific cardiovascular risk for women. In addition, children born to these mothers are at risk of developing premature cardiovascular diseases and its risk factors.”

Pregnancy is a ‘one body, two heart’ situation. There is a dire need of assessing the quality of care that pregnant women receive and their cardiovascular risk. Heart checkups before conceiving and after-delivery follow-ups for women whose pregnancy has been complicated by heart disease need to be prioritised. Once we identify our challenges, we can develop a model of care for pregnant mothers and implement it at a national level to improve maternal outcomes.

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