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Mini-commentary on BJOG-19-0768.R1: The high prevalence and impact of rheumatic heart disease in pregnancy in First Nations populations in a high-income setting: a prospective cohort study

Acquired heart disease in pregnancy – need for a greater focus

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Cardiovascular conditions are now the leading cause of maternal death in both the US (Petersen EE et al MMWR Morb Mortality Wkly Rep 2019; 68:762-765) and the UK (Knight M et al Saving Lives, Improving Mothers' Care 2019, NPEU:Oxford). The majority of women die from acquired heart conditions, and more than half of women who die are not known to have cardiac disease prior to pregnancy. In the US, deaths from cardiomyopathy cause a proportionately higher number of pregnancy-related deaths amongst black women compared to white women. Disparities in overall maternal mortality by ethnic group have also been identified in the UK.

Whilst awareness of the possibility of acquired cardiomyopathies and ischaemic heart disease in pregnancy is perhaps beginning to rise in high income countries as a result of these findings, rheumatic heart disease (RHD) has little focus due to an assumption that it has largely been eliminated, despite maternal deaths from RHD continuing to occur. Sullivan et al (Sullivan et al BJOG 2019; vol:page) highlight a stark disparity in pregnancy-associated rheumatic heart disease prevalence and outcomes amongst First Nations populations in Australia and New Zealand – Aboriginal or Torres Strait Islander Australians, or Maori or Pasifika in New Zealand – which further emphasises the need to consider acquired heart disease in pregnancy, and particularly amongst disadvantaged populations.

Sullivan et al used the Australasian Maternity Outcomes Surveillance System (AMOSS) to identify women with RHD in pregnancy across almost 300 maternity units, covering 98% of the birth population in those countries. Nearly 9 in 10 of the affected women were from First Nation populations. Three quarters of the affected women from First Nations populations lived in the most deprived quintile of areas. The study identified important ways in which care could be improved and clear differences in care received by First Nations women with RHD in pregnancy compared to other women with RHD in pregnancy. Although the majority of women were known to have RHD before pregnancy, almost 40% did not have a first antenatal visit until more than 20 weeks gestation. Many had additional co-morbidities. Reassuringly maternal mortality was low, but one in five babies were born preterm. All the babies who were stillborn or died in the neonatal period were born to First Nation mothers.

The authors do not report what proportion of women had received pre-pregnancy care and advice, but note that a third had no cardiac care consultation during pregnancy. The recent European Society for Cardiology guidelines on the management of cardiovascular diseases in pregnancy (Regitz-Zagrosek V et al. 2018. Eur Heart J 39:3165-3241) emphasise the importance of pre-pregnancy and pregnancy cardiac care to optimise maternal health and improve pregnancy outcomes for both mothers and babies.

The occurrence of RHD predominantly in disadvantaged populations may partly explain the lack of emphasis there has been on maternal RHD in high resource countries. These findings show that such a focus is clearly needed, emphasising not only the importance of pre-pregnancy and pregnancy care, but ongoing public health actions to prevent disease.

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