Clinical overdiagnosis of placenta accreta spectrum impacts epidemiology and management outcomes

Mini-commentary for BJOG on Kayem et al 2021 BJOG-20-1462R3

The group of disorders that make up placenta accreta spectrum (PAS) are among the most feared causes of maternal morbidity worldwide, and yet very few prospective data are available to inform best practice. PAS is rare enough that rigorous study in a single center is difficult, but common enough that most obstetric hospitals now will encounter PAS periodically. Management and outcomes vary strikingly between hospitals and best practice, regrettably, is guided more by expert consensus than by level I evidence. In fact, most clinical questions regarding management of PAS are informed by essentially no prospective data (Collins AJOG 2018).

Into this data void has come the PACCRETA cohort (Kayem AOGS 2013) and some of its first results, published in this issue of BJOG (Kayem BJOG 2021). PACCRETA is a population-based study from 8 regions and 176 hospitals in France, capturing 30% of all French deliveries, from from 2013 to 2015. Of more than 520,000 deliveries, the study investigators identified 249, or 4.8 per 10,000, cases of PAS.

Of all PAS patients, Kayem and colleagues found that a full half did not have the classic combination of risk factors for PAS (previa with history of cesarean) and that this group had lower morbidity and milder disease than those with the classic combination. Only 17% of those without classic risk factor were diagnosed antenatally. The message here is mixed: those without classic PAS risk factors are less likely to be diagnosed antenatally (bad) but appear to suffer less morbidity overall (good).

But did these patients actually have PAS? Only 21% of those without prior cesarean and previa had a hysterectomy. Although this could be due to a regional preference for conservative treatments, the presence of false positives seems likely. Without a hysterectomy specimen, the diagnosis of PAS is difficult, controversial, and (in our opinion) highly susceptible to overdiagnosis. The authors define "strict" criteria for true cases of PAS, but several criteria depended entirely on the subjective assessment of a clinician faced with a difficult placental removal and the flawed principle of *PAS as diagnosis of exclusion*. Difficulty in manual placental removal or massive bleeding from an implantation site does not always indicate that microscopic PAS was present. Similarly, areas of prior cesarean section scar dehiscence (windows) where the placenta can be seen through the serosa are often diagnosed as percreta without any histological evidence of the villous tissue having invade through the serosa or beyond (Hecht et al., Modern Pathol 2021). Within this context, it is difficult to comprehend how six women out of 127 women without a prior cesarean delivery and without a placenta previa were diagnosed as having a placenta percreta (Kayem BJOG 2021).

The problem of PAS misdiagnosis, specifically the problem of overdiagnosis in conservatively managed cases, will continue to plague the field of PAS research

until controlled studies of patients with antenatally suspected PAS and detailed intra-operative recording and histopathological examination are performed. In their absence, the void of definitive data to guide treatment options will continue to remain wide open.

Disclosure of interests

The authors declare no conflicts of interest.

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