

MC on BJOG-20-0227.R2 Prevalence of Endometriosis: how close are we to the truth?

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Endometriosis is a common health condition affecting women of reproductive age who often present with chronic pelvic pain and/or infertility. There is wide variation in the estimates of endometriosis prevalence. Accurate reporting of the disease prevalence is hampered by multiple factors including long delay in diagnosis due to natural fluctuation in symptoms severity, lack of a reliable non-surgical diagnostic tool, polymorphic appearance of endometriosis lesions at laparoscopy, inability to achieve histological confirmation is all suspected cases and tendency for disease recurrence. Therefore, a longitudinal, rather than cross-sectional, cohort study design spanning an extended follow-up period is better suited to assess endometriosis prevalence. In this issue of BJOG, Rowlands and colleagues (2020) linked longitudinal survey data to three administrative health databases to identify the prevalence of endometriosis among 13,508 young Australian women followed up for nearly 20 years. The study reported a 6% cumulative prevalence of clinically-confirmed endometriosis and an additional 5.4% of clinically-suspected endometriosis. If these figures reflect the true prevalence of endometriosis, then one in nine women will be diagnosed with endometriosis at some point during their reproductive years up to the age of 44 with a peak at 30-34 years, thus underscoring the significant impact of the disease on the well-being and quality of life in young women and the enormous burden on healthcare resources needed to diagnose and treat endometriosis and its sequelae.

The data presented in the study of Rowlands and colleagues (BJOG 2020) included patients who could have been diagnosed with adenomyosis but their condition was coded as endometriosis. This is unlikely to have significantly over-estimated the prevalence of endometriosis as recent evidence suggests adenomyosis prevalence to be only 1% with a considerable proportion of those patients having co-existing endometriosis (Yu et al, *Am J Obstet Gynecol* 2020; 223: 94.e1-10). The same can not be said about the 5.4% of clinically-suspected endometriosis cases. Symptoms review, clinical examination and various imaging modalities, including ultrasound scanning and magnetic resonance imaging, represent the cornerstone of non-invasive diagnosis of endometriosis. Current evidence suggests that the predictive accuracy of those non-invasive methods in the diagnosis of endometriosis compared to laparoscopy and histological confirmation is modest (Nisenblat et al, *Cochrane Database Syst Rev*, 2016 (2): CD009591) and depends on the combination of diagnostic tools used as well as the site and extent of the endometriosis lesions (Reid et al, *Eur J Obstet Gynecol Reprod Biol* 2019; 234: 171-178). These data are not provided in the study of Rowlands and colleagues. It is therefore difficult to accurately estimate the prevalence of endometriosis whether it's the 6% clinically-confirmed rate or the full 11.4% confirmed and suspected rate. The truth probably lies somewhere in the middle! Future epidemiological studies should endeavour to elucidate on the distinction between the different methods used in the diagnosis of endometriosis with reference to the predictive accuracy of each diagnostic modality to help advance our understanding of the incidence and risk factors associated with this debilitating gynaecological condition.

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