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Urogynecology digest

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Chughtai B, Sedrakyan A, Mao J, Eilber KS, Anger JT, Clemens JQ. Is vaginal mesh a stimulus of autoimmune disease? Am J Obstet Gynecol. 2017;216(5):495.e1–495.e7.

This was a retrospective cohort study that analysed the New York Department of Health Statewide Planning and Research Cooperative System data. Adult women (aged 18 years or over) undergoing surgery for pelvic organ prolapse with a vaginally implanted mesh from January 2008 to December 2009 in inpatient and ambulatory surgery settings in New York were identified with the objective of investigating a potential link between the development of systemic/autoimmune disorders and synthetic polypropylene mesh repairs. Two separate control cohorts were created to compare outcomes, including a screening colonoscopy cohort and a vaginal hysterectomy cohort for benign gynaecological conditions (without pelvic organ prolapse repair or sling). Patients in the mesh cohort were individually matched to the control cohorts based on demographics, comorbidities and procedure date. The development of systemic/autoimmune disease was determined before and after matching for periods of 1 year, 2 years, 3 years and the entire follow-up (up to 6 years until December 2014). There were 2,102 patients who underwent mesh-based pelvic organ prolapse surgery from January 2008 to December 2009. In the control cohorts, 37,298 patients underwent colonoscopy and 7,338 underwent vaginal hysterectomy. The authors concluded that mesh-based vaginal surgery is not associated with a higher risk of developing systemic/autoimmune diseases than routine screening colonoscopy or vaginal hysterectomy.

A strength of this population-based cohort study is that baseline characteristics were compared between mesh and control cohorts. However, the study had certain limitations. The New York State Department of Health Statewide Planning and Research Cooperative System is an administrative database, and therefore clinical variables including severity of pelvic organ prolapse and volume of mesh placed were not available. Also noted was the lack of clinical and laboratory data for autoimmune disease. The database also risks miscoding procedures and diagnosis of autoimmune disease. The authors also highlight that they were unable to adjust for environmental factors as they were unavailable in the administrative data.

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