P095  ARE POLYPROPYLENE MESH IMPLANTS ASSOCIATED WITH SYSTEMIC AUTOIMMUNE/INFLAMMATORY SYNDROMES?

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Aim: Worldwide there is a lot of commotion about the effects and complications of mesh implants. The surgical implantation of polypropylene (PP) meshes has been linked to the occurrence of systemic autoimmune disorders (SAIS). We performed a systematic review to determine whether PP implants for inguinal, ventral hernia or pelvic floor surgery are associated with the development of SAIS.

Material and Methods: We searched Embase, Medline, Web of Science, Scopus, Cochrane library, clinicaltrialsregister.eu, clinicaltrails.gov and WHO-ICTR platform. Forward and backward reference searching was performed to avoid missing relevant papers. All types of studies, except case studies, reporting SAIS in patients having a PP implant for either pelvic floor surgery, ventral or inguinal hernia repair were included. Animal studies were excluded. We intended to perform a meta-analysis. The quality of evidence was assessed with the Newcastle-Ottawa Scale. This study was registered at Prospero (CRD42020220705).

Results: Of 1938 records identified, 3 were eligible. Two studies involving retrospective matched cohorts focused on mesh surgery for vaginal prolapse or inguinal hernia compared to hysterectomy and colonoscopy, respectively. These reports had a low risk of bias. The third study was a case-series with a high risk of bias, with a sample of 714 patients with systemic disease, 40 of them had PP mesh implanted. A meta-analysis showed no association when comparing systemic disease between mesh and control groups. Calculated Risk Ratio was 0.9 (95%CI 0.78-1.04).

Conclusions: To date, there is no evidence to suggest a causal relationship between being implanted with a PP mesh and the occurrence of SAIS.