**Abstract**

**Purpose:** Exploring potential risk factors for OMA recurrence, thereby contributing to the individual management of the disease and improving the patients' prognosis.

**Methods:** Data sources PubMed, Embase, the Cochrane Library, CNKI, and Wanfang data were searched systematically before October 2020. We computed the pooled odd ratios or the standard mean difference with their corresponding 95% confidence interval to investigate the impact of involved risk factors on endometrioma recurrence.

**Results:** The pooled findings of this meta-analysis demonstrated that endometrioma relapse was closely related to age at surgery [SMD (95% CI): - 0.28 (- - 0.38 to - 0.17), P < 0.00001], CA125 level [SMD (95% CI): 0.51 (0.14-0.88), P = 0.007], cyst size [SMD (95% CI): 0.35 (0.08-0.62), P = 0.01], dysmenorrhea [OR (95% CI): 1.47 (1.07-2.02), P = 0.02], endometriosis-related surgery history [OR (95% CI): 2.60 (1.84-3.67), P < 0.00001], pre-operative medication [OR (95% CI): 2.13 (1.41-3.22), P = 0.0003], rASRM score [SMD (95% CI): 0.33 (0.20-0.46), P < 0.00001]. Furthermore, post-operative pregnancy was indicated a protective factor for preventing the OMA recurrence after surgery [OR (95% CI): 0.22 (0.09-0.56), P = 0.001]

**Conclusion:** Age at surgery, CA125 level, cyst size, dysmenorrhea, endometriosis-related surgery history, pre-operative medication, rASRM score were risk factors for endometrioma relapse. In addition, post-operative pregnancy was a protective factor for preventing recurrence after surgery. However, the effect of bilateral involvement, combination with adenomyosis, or post-operative medication on endometrioma relapse need further investigations.