SUPPORT: None
REFERENCES:

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E-POSTER ABSTRACT SESSION: T5

P-261 6:45 AM Tuesday, October 25, 2022

ORAL GONADOTROPIN-RELEASING HORMONE ANTAGONISTS IN THE TREATMENT OF ENDOMETRIOSIS: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS OF EFFICACY PARAMETERS AND ADVERSE EFFECTS.

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OBJECTIVE: The aim of this systematic review is to synthesize evidence regarding the use of oral gonadotrophin-releasing hormone (GnRH) antagonist for the treatment of pain associated with endometriosis.

MATERIALS AND METHODS: Web of Science, and MEDLINE databases were searched electronically in March 2022. Only randomized controlled trials involving patients with surgically confirmed endometriosis treated with different doses of oral nonpeptide GnRH antagonists therapy were included. A network meta-analysis using random effects was performed and treatments were ranked according to their P score.

RESULTS: Five randomized trials were included in the analyses. Included studies were found to be at low risk of bias. Endometriosis-associated pain was reported in 3 studies with 1626 participants. All regimens of elagolix were significantly better than placebo for controlling endometriosis-associated pain at 3 months and higher doses of elagolix (200mg BID) scored higher (mean difference [MD] in pain scores: -1.22, 95% CI: -1.31 to -1.15) compared to lower doses of 150mg OD (MD:-0.53, 95% CI: -0.61 to -0.44) and 250mg OD (MD: -0.48, 95% CI: -0.62 to -0.33). Dyspareunia scores were reported by 4 studies with 1406 participants. All doses of linzagolix and elagolix were significantly better than placebo for reducing dyspareunia scores at 3 months while relugolix was not better than placebo. The highest reduction in dyspareunia scores was achieved with Linzagolix 200mg OD (MD: -0.40, 95% CI: -0.52 to -0.28), followed by Linzagolix 100mg OD, Elagolix 200mg BID, and Linzagolix 50mg OD, which all offered similar dyspareunia relief between 0.23 to 0.27 points. Dysmenorrhea pain scores were reported by 3 studies with 1621 participants. Best pain relief was achieved with Relugolix 40mg OD (MD: -1.70, 95% CI: -2.00 to -1.40) followed by Elagolix 200mg BID (MD: -1.22, 95% CI: -1.39 to -1.05) and Relugolix 20mg OD (MD: -1.20, 95% CI: -1.56 to -0.84). Finally, best relief for non-cyclical pelvic pain was achieved with Relugolix 40mg OD (MD: -0.40, 95% CI: -0.69 to -0.11) followed by Elagolix 200mg BID (MD: -0.36, 95% CI: -0.43 to -0.30) while lower doses of relugolix did not offer significantly better pain relief compared to placebo.

CONCLUSIONS: Higher dose regimens of various oral GnRH antagonists were effective at controlling endometriosis, sexual intercourse, menstrual bleeding associated pain, and non-cyclical pelvic pain. Twice daily 200mg Elagolix treatment was ranked in the top three for all investigated outcomes. Relugolix was not better than placebo for controlling dyspareunia.

IMPACT STATEMENT: Oral GnRH antagonists are effective at controlling pain in endometriosis patients in short term but high dose regimens may be required for an adequate response.

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IMPACT OF ENDOMETRIOSIS SURGERY ON IN VITRO FERTILIZATION (IVF)/INTRA CYTOPLASMIC SPERM INJECTION (ICSI) OUTCOMES: A SYSTEMATIC REVIEW AND META-ANALYSIS.

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OBJECTIVE: For patients with endometriosis-related infertility, the impact of endometriosis surgery on assisted reproductive technology (ART) outcomes remains controversial. This systematic review and meta-analysis aimed at comparing ongoing pregnancy rates (OPR) and/or live birth rates (LBR) in patients who underwent surgery for endometriosis before IVF/ICSI, with those in patients who underwent first-line IVF/ICSI.

MATERIALS AND METHODS: Systematic review and meta-analysis of published controlled studies. Searches were conducted from January 1990 to June 2021 on PUBMED, EMBASE and Cochrane Library, using the following search terms: endometriosis, surgery, reproductive outcomes, IVF/ICSI. A total of 40 full-text articles were preselected from 1383 references, based on title and abstract and assessed utilizing the Newcastle-Ottowa Quality Assessment Scales. Study selection and data extraction were carried out by two independent reviewers according to Cochrane methods. Random-effect meta-analysis was performed on all data (overall analysis) followed by subgroup analysis (endometriosis phenotype, type of endometriosis surgery).

RESULTS: Data from 19 relevant articles were extracted and integrated in the meta-analysis. Meta-analysis of the 3 studies that reported OPR per cycle as an outcome found no significant difference between patients who underwent endometriosis surgery before IVF/ICSI and those who did not (risk ratio (RR) = 1.28, 95% CI: 0.66-2.49, P = 0.47). The same conclusion was reached when analyzing the 11 studies that described LBR per cycle (RR = 0.91 (95% CI: 0.63-1.30, P = 0.60)), or cumulative LBR after all IVF/ICSI cycles (7 studies: RR = 1.09 (95% CI: 0.61-1.92, P = 0.78)). Sensitivity analysis led to similar results and conclusions. Subgroup analysis according to the endometriosis phenotype (endometrioma (OMA) or deep infiltrating endometriosis) or the type of OMA surgery (transvaginal ethanol sclerotherapy, cystectomy or other) showed similar results regarding LBR per cycle, when comparing prior endometriosis surgery followed by ART and first-line ART (RR = 0.83 (95% CI: 0.58-1.18), P = 0.29, and RR = 0.97 (95% CI: 0.71-1.34, P = 0.87), respectively).

CONCLUSIONS: The results of this systematic review and meta-analysis showed no statistically significant benefit for surgery before IVF, in endometriosis patients.

IMPACT STATEMENT: These data urge the clinician to carefully weight the pros and cons before systematically referring infertile endometriosis patients to radical surgery.

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RACIAL DISPARITIES IN ENDOMETRIOSIS SURGERY.

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OBJECTIVE: To investigate ethnic and racial disparities among outcomes of uterus-sparing endometriosis surgery.

MATERIALS AND METHODS: We performed a retrospective cohort study using the National Surgical Quality Improvement Program database. Patients were identified who had open or laparoscopic surgery by a gynecologist for endometriosis between January 1, 2006 and December 21, 2020. Hysterectomies and cancer diagnoses were excluded. Preoperative factors, surgical operative times, intra- and post-operative complications, and mortality were compared. Data analysis was performed using Chi-square, Fisher's exact test, ANOVA, Kruskal Wallis test, and multivariable logistic regression (P<0.05). Analyses were completed in R version 4.1.0 (Vienna, Austria).