

TITLE: HISTORY OF AN IUD AND CHRONIC ENDOMETRITIS: IS THERE AN ASSOCIATION?

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Background

Chronic endometritis (CE) is an inflammatory condition of the endometrial lining that may impact fertility ¹. Patients with a history of an intrauterine device (IUD) who have difficulty conceiving or suffer miscarriages may be more likely to have CE, but more data are needed to confirm whether there is an association between this form of contraception and CE.

Objective

To examine whether a history of having an IUD is associated with CE and to determine if there is a difference in response to CE treatment in those with a history of an IUD.

Materials and Methods

This prospective cohort study evaluated patients who underwent endometrial biopsy (EMB) for CE evaluation at a single academic institution (2022-2023). Patients completed a survey about their reproductive history. If the patient had a history of an IUD, the date of removal was determined by patient report or chart review. Diagnosis of CE was made by the reading pathologist if at least one plasma cell was present in conjunction with stromal alteration. The associations between IUD history and diagnosis of CE as well as treatment outcomes were evaluated using Chi-squared tests.

Results

A total of 149 patients underwent EMB to evaluate for CE. The most common indications for EMB were recurrent pregnancy loss (RPL) (41.6%) and implantation failure (IF) (18.8%). Most patients (86.6%) who were screened for CE had been pregnant in the past, and of those who were gravid, 69.0% reported their most recent pregnancy was a miscarriage.

Among all patients, 49.7% were diagnosed with CE, and 22.8% reported having an IUD in the past. There was a significant association between CE and a history of having an IUD with 32.9% of those with CE reporting a history of having an IUD. In the patients without CE, only 13.3% reported having an IUD ($p=0.01$).

The mean amount of time from IUD removal to EMB was 2.7 years. The prevalence of CE stratified by time from IUD removal is shown in Table 1. Notably, all seven patients who had their IUD removed less than one year before the EMB was performed were diagnosed with CE.

In total, 66 patients had CE diagnosed, were treated for CE with antibiotics and underwent a test of cure (TOC) to evaluate for persistent CE. Among these patients, 62.1% had persistent CE on their TOC. Of the patients who were treated for CE and underwent a TOC there was no significant difference in rate of persistent CE among those who had an IUD (72.8%) compared to those who had never had an IUD (55.8%) ($p=0.30$).

Conclusions

There was a significant association between CE and a history of having an IUD. Although rates of persistent CE were higher in those who had an IUD when compared to those who had not had an IUD, this difference was not significant.

Financial Support: The Nezhat Family Foundation.

References:

Singh N, Sethi A. Endometritis - Diagnosis, Treatment and its impact on fertility - A Scoping Review. JBRA Assist Reprod. 2022 Aug 4;26(3):538-546.

Table 1.

Time from IUD removal to EMB (years)	N=34	CE prevalence (%)
<1	7	100%
1-2	7	42.9%
2-3	9	77.8%
3-4	6	83.3%
4-5	3	66.7%
>5	2	0%