RESOLUTION OF RECURRENT ENDOMETRIAL POLYPOSIS AFTER THE USE OF LEUPROLIDE ACETATE

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Background: One-third of reproductive-age women are found to have endometrial polyps during preparation for *in vitro* fertilization (IVF). Diffuse decidual pseudopolyposis is a rare condition of endometrial overgrowth, which could be mistaken for multiple polyps or even endometrial malignancy. Hysteroscopic polypectomy and endometrial curettage are common management strategies for endometrial polyps though are not effective in treating pseudopolyposis. It has been shown that recurrent polyps can be prevented using a combination of hormone replacement therapy and gonadotropin-releasing hormone (GnRH) agonists. Medical management of decidual pseudopolyposis remains challenging due to the nature of hormonal dependency. Pseudopolyposis poses a particular difficulty in endometrial preparation for IVF. The efficacy of GnRH agonists in the prevention of decidual pseudopolyposis has not been elucidated.

Purpose: We present a clinical case of recurrent pseudopolyposis, which was initially surgically managed and successfully resolved only after the therapy with leuprolide acetate.

Design and Methods: A case report. Retrospective chart review.

Results: A 27-year-old nulligravid female was preparing for IVF due to multifactorial nine-year infertility: stage IV endometriosis, diminished ovarian reserve, tubal factor and male factor infertility. Her history was also significant for recurrent endometrial polyps, which were hysteroscopically removed by her primary gynecologist. Upon uterine cavity evaluation with saline infusion sonohysterogram (SIS) in preparation for IVF, she was found to have recurrent endometrial polyps, which were again hysteroscopically removed. Recurrent polyps were thought to be due to endometrial inflammation in the settings of adenomyosis. The patient was started on norethindrone acetate for endometriosis suppression and polyp prevention. After three months of the progestin therapy, she was found to have diffuse polyposis on repeat SIS. The patient underwent hysteroscopy and endometrial curettage, revealing an unusual diffuse endometrial pathology. Initial analysis by an institutional pathologist was concerning for a rare Mullerian carcinosarcoma. The case was then reviewed by a nationally recognized GYN pathology expert, who made a diagnosis of benign diffuse decidual pseudopolyposis with a prominent progestational effect. Norethindrone was discontinued, and the patient was treated with leuprolide acetate for three months. Repeat SIS showed a normal endometrial cavity without recurrent polyposis. Patient's infertility was further managed with IVF utilizing frozen donor oocytes. A day five blastocyst transfer in a programmed embryo transfer cycle resulted in successful conception and an uncomplicated pregnancy.

Conclusions:
Diffuse decidual pseudopolyposis can be successfully treated with leuprolide acetate. Norethindrone acetate for endometriosis can rarely lead to diffuse decidual pseudopolyposis. Prompt discontinuation of progestin therapy is advised. Surgical removal may not be effective in the management of decidual pseudopolyposis, and Women's Health providers may consider treatment with GnRH agonists instead.