

Case Report

Regression of a Large Endometrioma after Treatment with Dienogest

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Abstract

Ovarian endometriomas are a common presentation of endometriosis. Surgery is considered the first therapeutic approach of endometriomas larger than 5 cm. We present a case of a right ovarian endometrioma with a size of 9 cm, which did not undergo to ovarian surgery due to anesthetic contraindication that was reduced after a prolonged treatment with dienogest 2 mg per day. We take note that in this case dienogest 2 mg per day used for over 22 months has reduced ovarian cyst since avoiding surgery.

Keywords: Endometrioma; Endometriosis; Dienogest; Medical therapy

Introduction

Endometriosis is defined as presence of endometrial glands and stroma outside endomoetrium [1]. Ovarian endometriomas are a common presentation of endometriosis. Surgery is universally considered the first therapeutic approach for women with symptomatic or enlarging endometriomas [2,3] but it may have side effect on ovarian reserve. Dienogest (DNG) is an orally-active semisynthetic, steroidal progestogen, highly selective for progesterone receptors, derivative of 19-nortestosterone, that has recently been introduced for the treatment of endometriosis. Clinical studies of DNG with durations between 12 and 24 weeks have provided information on optimal dosing and on efficacy and safety characteristics that are relevant to the long-term management of endometriosis [4-6]. However, there are few studies that show a long term treatment over 53 weeks [7]. An over 90 weeks treatment with DNG 2mg per day in our case report resulted in a remarkable regression of endometrioma and elimination of symptoms.

Case Report

A 31 year old patient presented to our attention for incidental finding of a right 9 cm adnexal cyst, detected in an abdominal ultrasound scan during a hospitalization for pericarditis. The patient was 1.5 m tall, weighing 75 kg, and has never had pregnancies. She had menarche at 11 years and referred severe pelvic pain with VAS scale 9 and sense of abdominal heaviness 2/3 days before each menstrual period. A transvaginal pelvic ultrasound was performed and it showed a regular size, anteverted uterus with regular echogenicity, secretory endometrium. Left ovary was regular. The right ovary was affected by a 92×47 mm cyst fluid with ground-glass echogenicity (Figure 1), with Sonographic findings (according to the criteria of the International Ovarian Tumor Analysis (IOTA) suggestive for endometrioma. A MRI confirmed the endometriotic nature of the cyst previously described (Figure 2), Ca 125 was 78.57 UI. Surgical intervention was proposed but the patient referred a severe complication leading to a coma occurred after a general anesthesia performed in her childhood; for this reason she was required to perform allergy testing to anesthetic drug.

A therapy with DNG 2 mg/die was administered trying to reduce the mass of the endometrioma along with the dysmenorrhea, in preparation for surgery. During the following months the periodic ultrasound controls showed a progressive decrease in the dimensions of the cyst and the patient reported a quickly reduction of the symptoms with a dysmenorrhea of VAS scale 3. After 5 months the cyst was found



nature of endometriosis.

to be 75 mm of maximum diameter and the symptoms had been absent in the previous 3 months. The following periodic ultrasound controls demonstrated a slow and progressive reduction of the size of the endometrioma. The DNG was administered over 22 months.

After 22 months of therapy with DNG, the pelvic ultrasound scan showed two right ovary fluid cysts with ground-glass echogenicity of 19×19 mm and 16×21 mm compatible with the previously described endometrioma cyst (Figure 3), but significantly reduced in volume and Ca 125 was 31.65 UI. Patient was asked to perform a pelvic MRI but she refused because she was completely reassured by ultrasound results.

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Received December 01, 2015; Accepted January 14, 2016; Published January 21, 2016

Citation: Riviello C, Cozzolino M, Pavone D (2016) Regression of a Large Endometrioma after Treatment with Dienogest. JFIV Reprod Med Genet 4: 168. doi:10.4172/2375-4508.1000168

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Figure 2: MRI ultrasound confirms the report of endometriotic cysts, impregnation with both before and after contrast medium.



Figure 3: Last ultrasound after 22 months showed two small endometrioma about 2 cm.

Discussion

The standard therapy for treatment of symptomatic endometriomas and endometriomas larger than 5 cm is laparoscopic surgery [8]. Medical therapy, performed with contraceptive pill progestins or GnRH analogues, is considered unlikely to determine a complete regression of lesions larger than 1 cm [9]. Also, medical treatment is not preferred by most clinicians as it precludes a definitive histological diagnosis. Medical therapy is however often used before surgery to decrease the size of endometriotic implants and the extent of the operation [10]. DNG is highly selective for progesterone receptors, and it has been shown to reduces endometriotic lesions through a number of biological mechanisms such as moderate inhibition of gonadotropin secretion, leading to a modest reduction in the endogenous production of estradiol, induction of a hypoestrogenic, hypergestagenic local endocrine environment, Common term of therapy is considered of 12 or 24 weeks however there are studies in literature that show that administration of DNG for over 53 weeks in endometriosis may be useful in reducing endometriosis and adenomiosis without side effects [7].

The present case confirm this statement, because after over 90 weeks of daily administration, DNG showed a good safety and tolerability profile, without side effects and obtained an effectiveness in reducing pelvic pain [4], and in reducing the size of the endometrioma. Moreover, Ca125 slowly decreased below normal range.

Although surgery still remain the first choice treatment for large endometrioma, in selected cases, DNG can be very effective in reducing the size of endometriomas and eventually in avoiding surgery or reducing its invasivity. In the present case, DNG reduced the size of the endometrioma up to avoiding ovarian surgery.

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