European Journal of Obstetrics & Gynecology and Reproductive Biology 198 (2016) 127–130

Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Review

Hysteroscopic myomectomy outcomes after 3-month treatment with either Ulipristal Acetate or GnRH analogues: a retrospective comparative study

Javier Monleón Sancho, Verónica Serrano de la Cruz Delgado *, Maria José Nuñez Valero, Marta Gurrea Soteras, Vicente Payá Amate, Antonio Abad Carrascosa

HUP La Fe, Valencia, Spain

ARTICLE INFO

Article history:
Received 5 September 2015
Received in revised form 11 December 2015
Accepted 2 January 2016

Keywords:
Hysteroscopic myomectomy
Ulipristal acetate
Pre-surgical treatment

ABSTRACT

Ulipristal Acetate (UPA) modifies the endometrium, as well as fibroids, and therefore it might make hysteroscopic surgery more difficult.

To confirm that pre-treatment with UPA is as safe and effective an option as pre-treatment with GnRH analogues, considered the gold standard.

We present the first series of 26 hysteroscopic myomectomies after 3 months treatment with UPA and we compare the results with a series of 24 cases pretreated with GnRH analogues. This was a retrospective cohort study between July 2013 and May 2015. We analyszed patients with submucous myomas >2.5 in diameter. Hysteroscopic myomectomy was performed after 3 months of treatment with either UPA (5 mg daily) or the GnRH agonist (3.75 mg/month).

Both groups were similar in age, myoma initial size and classification. There were no significant differences between UPA and GnRHa treated groups in terms of percentage of myomas resected (93% vs 98%), duration of surgery (38 vs 37 min), fluid deficit (200 vs 350 ml) and complications. In the surgeon's subjective opinion, UPA treatment was associated with an easier resection.

Based on our experience, previous treatment with UPA does not difficult Hhysteroscopic myomectomy. Endometrial changes have no impact on surgery. Safety and feasibility are comparable to hysteroscopic myomectomies with previous treatment with GnRH analogues. This allows us to take advantage of the reduction in size of fibroids before surgery with less side effects.

Contents

* Corresponding author at: Bulevard sur s/n, Valencia, Spain. Tel.: +34 961244000.
E-mail addresses: monlesancho@gmail.com (J.M. Sancho), Vero_SDLCD@msn.com (V.S.d.l.C. Delgado), m.jose.nunez.valera@gmail.com (M.J.N. Valero), martagurrea@gmail.com (M.G. Soteras), vpayaa@sego.es (V.P. Amate), toni.abad@yahoo.es (A.A. Carrascosa).

http://dx.doi.org/10.1016/j.ejogrb.2016.01.014
0301-2115/

Introduction

The effects of ulipristal acetate (UPA) on hysteroscopic surgery are still not well known. UPA may affect myomas and also the endometrium ad these changes may affect the surgical outcome, but to our knowledge there is no published data on this issue.

We present the first series of hysteroscopic myomectomy surgeries performed after three months of treatment with ulipristal acetate (UPA).

The purpose of this study is to confirm the feasibility of hysteroscopic myomectomy after three months of treatments with UPA, and to compare the interventional outcomes with those of patients pretreated with GnRH analogues.

Submucous myomas represent about 10% of all myomas. They protrude into the uterine cavity and cause distortion, and this usually provokes heavy bleeding and pain with more intensity than other myomas. They may also cause infertility [1–5].

The hysteroscopic approach is usually recommended for myomectomy, as a first line treatment [6–9]. Due to difficulty of surgery related to the size of the myoma, it has been a common practice to pre-treat patients with GnRH analogues before the intervention, in order to reduce the size and decrease bleeding. This allows better vision and access, less duration of the procedure and therefore provides optimal surgical results. GnRH analogues have been proven to shrink myomas, reduce bleeding caused by endometrial atrophy and to decrease vascularization of the myoma. They also induce amenorrhea, which is useful when scheduling surgery and allows patients to recover from anaemia. Nevertheless, they induce a menopausal state as a secondary effect and if used for a long period of time, may lead to bone demineralization and severe hot flushes, which often impact patients' quality of life [10–14].

UPA has recently been added to the range of therapeutic treatment options and has shown a positive effect in reducing myoma's size [15]. Amenorrhea is induced in a more rapid way in most patients and in addition, side effects are better tolerated with significantly less vasomotor symptoms, when compared to GnRH analogues [16].

Nevertheless, UPA triggers effects on the endometrium and may cause the apparition of PAECs (Progesterone Receptor Modulator Associated Endometrial Changes). These are physiological changes but might augment endometrial thickness and could affect intrauterine vision. Therefore they have been theoretically considered as an inconvenient for hysteroscopical myomectomy [15–19].

The final effect on surgery of this drug is not well known and, as far as we are aware, our report is the first on this issue [20].

Thus we present a series of cases where we have found no difficulty in hysteroscopic surgery after treatment with UPA.

Subjects and methods

Our objective was to compare if hysteroscopic myomectomy after treatment with UPA is as safe and effective as that in patients pretreated with GnRH analogues.

Surgical outcomes were compared, in order to prove that the cases pretreated with UPA did not present more difficulties than those with usual treatment [20,21].

This was a retrospective cohort study from July 2013 to May 2015. One cohort included patients treated with UPA 5 mg/day for 3 months and the other cohort with patients treated with GnRH analogues during 3 months (Triptorelin acetate 3.75 mg/month). Patients were treated for a three-month period before hysteroscopic myomectomy was performed. All procedures in the UPA group were performed before menstruation occurred and mainly between 10 and 20 days after the last dose of treatment.

At the start of data collection, two specialists in our centre were responsible for diagnosis and surgical indications in patients affected by submucous fibroids. The first physician continued to prescribe GnRH analogues for pre-treatment (the usual practice). The second physician started recommending UPA pre-treatment after observing a fair response with this drug in several test cases.

Patients were assigned to each doctor routinely by administrative personnel when they came to the hospital, not taking into account any medical issue. Informed consent was obtained from all patients for this procedure since the use of UPA previous to a hysteroscopy had not been completely tested.

The criteria used to indicate pre-treatment in a hysteroscopic myomectomy, were submucous myoma in premenopausal women with maximum diameter over 2.5 cm. Although we know that there is some controversy regarding the treatment before hysteroscopic myomectomy, our standard policy involves treating these patients with GnRH analogues.

As this study is conducted in a University Hospital, surgeries are often carried out by residents in their training period supervised by three senior surgeons. Pre-treatment, therefore, facilitates the intervention reducing the size of the myomas. Furthermore, the use of pre-treatment allows more effective planning and timing of the surgical sessions.

Three senior surgeons were responsible for all the procedures, and there was no direct relation between the drug prescriber and surgeon as surgical sessions were programmed independently. Surgery was always performed once treatment had finished and before menstruation occurred.

Both monopolar and bipolar resectoscope were used. Glycine or saline solutions were used depending on the type of resectoscope (monopolar glycine; bipolar saline).

Shrinkage of myomas and the fact that side effects during the pre-treatment are lower and better tolerated using UPA than GnRH analogues has not been tested in this study. We assumed results shown in the literature (which are according to our previous experience) were enough to validate this effect [15,16].

Several parameters were selected after reviewing literature in order to calibrate the efficacy of surgery. Size of the myoma, duration of operation, percentage of myoma resection, fluid deficit, during surgery and complications were analyzed.

Fluid deficit was calculated obtaining the balance between infused and collected liquid during hysteroscopy.

To compare the size of the myoma in both groups we use the ultrasound performed after the treatment and before surgery. The percentage of myoma resection (according surgeons impression) was subjectively estimated by the surgeon during the procedure, comparing the initial volume and the remaining at the end of the surgery.

We compared the mean outcomes with either a *T* test or a Wilcoxon rank sum test between groups.

Results

Twenty-six patients were treated with UPA 5 mg (Esmya®) and twenty-four with GnRH analogues.

There were no differences in parameters such as, percentage of nulliparous women, percentage of procedures performed by each surgeon or use of each type of resectoscope when both groups were compared. Most cases (92%) were performed with bipolar resectoscope.

The age of patients was slightly higher in UPA group, with a mean (SD) of 44 [6] years old vs 38 [6] in the GnRH analogues group.

Myoma size prior to surgery and after treatment was similar in both groups. We used a maximum diameter measured with ultrasound to compare sizes. The mean (SD) values were 34 (1.0)