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Case Report

Fertility and ulipristal acetate case report of two spontaneous pregnancies in the same patient following one cycle of treatment

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ABSTRACT

Ulipristal acetate (UPA) is an oral selective progesterone receptor modulator. It is one of the most recent alternatives in the management of symptomatic fibroids and its safety and effectiveness have already been demonstrated in several studies. Nevertheless, there is few evidence regarding its use in the subgroup of women who experience fertility issues and desire to conceive. The authors report a case of a 39- years-old woman with abnormal uterine bleeding and anemia. She had had an uncomplicated pregnancy some years before and was trying to have a second child. She was treated for 3 months with UPA, at a daily dose of 5 mg, per os, followed by a resectoscopic myomectomy. After five months, she conceived spontaneously and had an uneventful pregnancy. She then remained asymptomatic and almost two years after she was pregnant again. This case supports the idea that UPA is a valid alternative in patients still have a desire to conceive and thus want to avoid surgery. Even tough larger studies on the subject are required, UPA may become very important role in the management of fibroids in the infertility context.

Keywords: Fibroids, Pregnancy, Ulipristal acetate

INTRODUCTION

Uterine fibroids are benign tumours which originate in the smooth muscle cells of myometrium. It affects about 50 to 60% of women in childbearing age.¹

The symptoms depend on the size, location and number of fibroids but abnormal uterine bleeding, pelvic pain and infertility are often reported.² The mechanism of association between fibroids and infertility is not clearly understood: fibroids may impair gamete transport but mostly they may cause endometrial cavity distortion and affect endometrial development and hormonal response.³

As Bulletti et al showed, fertility rates improve after laparoscopic myomectomy.⁴ Many of these women benefit from conservative surgery, including less aggressive approaches such as hysteroscopic resection. Nevertheless, to maximize surgical outcomes, pre-

operative interventions to reduce fibroid size as well as to improve symptoms are often required.⁴

Some of these medical treatments may be considered as alternatives to surgical treatment. Gonadotropin-releasing hormone analogues (GnRHa) where the preferred medication but some of the side effects limited its use. Recently, there have been some innovations in the field and new options are now available.

Ulipristal acetate (UPA) is a selective progesterone receptor modulator (SPRM) which was found to be as effective as GnRHa in controlling uterine bleeding.⁵ Moreover, it reduces fibroids and uterine volume, and it is sustained for at least six months after treatment.^{5,6} Although there is still few evidence concerning UPA and pregnancy, no adverse effects were reported so far, making it an option for women who desire to conceive in the short-term.⁷

We present a case of a woman referred to our institution due to abnormal uterine bleeding and anemia. She desired another child, so it was our main goal to control the symptoms without compromising a future pregnancy.

CASE REPORT

A healthy 39-year-old woman was referred to our institution due to abnormal uterine bleeding and anemia. She had complained of heavy menstruations for several months. She eventually developed clinical anemia (hemoglobin level of 10,9g/dL) and required oral iron supplementation. A pelvic ultrasound was requested, and it described a submucosal fibroid with a 46mm diameter. When she came to our institution she had been trying to conceive for over a year. She had a previous pregnancy in her twenties with no complications and delivered a healthy child by cesarean section.

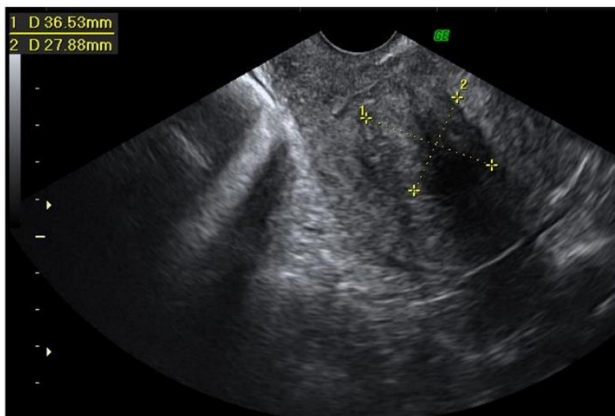


Figure 1: Pelvic ultrasound performed after treatment with ulipristal acetate.

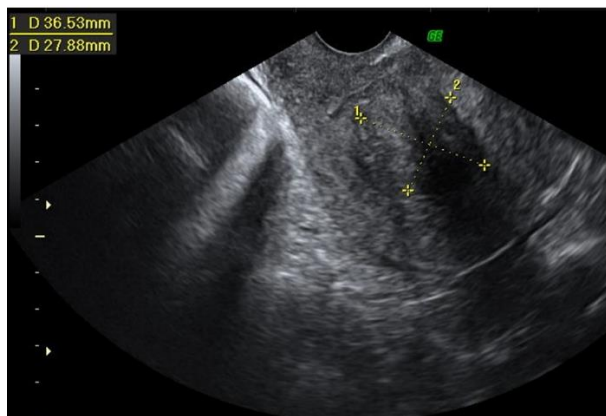


Figure 2: Obstetric ultrasound: 13-week pregnancy.

As she was trying to have a second child, contraceptive pills were not an option to control the bleeding. She was offered treatment with leuprolide acetate and three months after she underwent a partial resectoscopic resection of the fibroid. An ultrasound made afterwards described a submucosal fibroid with 40mm diameter and central and peripheral vascular flow. She was then

offered a three-month treatment with UPA at a daily dose of 5mg, per os. The abnormal bleeding ceased shortly after she begun the treatment. A new pelvic ultrasound was made after this cycle and it described a 37mm submucosal fibroid (Figure 1). She was then submitted to another resectoscopic myomectomy but this time it was successful in removing the whole fibroid. She remained asymptomatic and after five months she conceived spontaneously (Figure 2). The pregnancy was uneventful, and she delivered a healthy baby, at term, by cesarean section.

During the follow-up visits to her gynecologist, she reported no fibroid related complaints and did not require any medication to control uterine bleeding. Twenty-three months after the delivery of her second child, a new (unplanned) pregnancy was clinically confirmed- again there were no complications and the patient delivered by cesarean at term.

DISCUSSION

Fibroids are a highly prevalent pathology among women in reproductive age. In fact, symptoms related to fibroids, especially abnormal uterine bleeding, are one of the most frequent motives of referral to our institution. Surgery is the most definitive treatment, but many women seek for other options. Many desire to conceive and thus preserving the uterus is a priority. There are several medical options for controlling uterine bleeding associated with fibroids: progestins, oral contraceptives, nonsteroidal anti-inflammatory drugs, tranexamic acid, mifepristone, GnRHa, SPRM (e.g.: UPA) and aromatase inhibitors. GnRHa are very effective in controlling uterine bleeding but side effects are often reported, and it may delay a new pregnancy. Recently, UPA was approved for this purpose as it showed comparable efficacy to leuprolide acetate with fewer side effects.^{5,6} Moreover, it has been reported that the reduction in fibroid size is maintained for at least six months after the treatment.⁵ Most of medical alternatives available for fibroids management have limitations: when it comes to fertility some prevent conception whereas others have little information regarding its effects on a future pregnancy. Nevertheless, there is a growing number of case reports in the literature of pregnancies after UPA. Luyckx et al described a series of 18 pregnancies in infertile women treated with UPA for symptomatic fibroids and no adverse effects were reported.⁷ To our knowledge, present case is the first case of two consecutive spontaneous pregnancies following one cycle of treatment.

Ulipristal acetate is a recent development but its use in the management of symptomatic fibroids has been established not only for the pre-operative period but also as a valid alternative to surgery itself.⁵ Even though more evidence is needed, we believe its use when there are fertility issues is an advantage for these women as it may delay or avoid a surgery and thus allow them to conceive.

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