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Review

Management of leiomyomas in perimenopausal women

Pasquapina Ciarmela[a,b,*], Andrea Ciavattini[c], Stefano R. Giannubilo[c], Pasquale Lamanna[d], Rosamaria Fiorini[e], Andrea Luigi Tranquilli[c], Gregory M. Christman[f], Mario Castellucci[a]

[a] Department of Experimental and Clinical Medicine, Faculty of Medicine, Polytechnic University of Marche, Via Tronto 10/a, 60020 Ancona, Italy
[b] Department of Information Engineering, Polytechnic University of Marche, Ancona, Italy
[c] Department of Clinical Science, Polytechnic University of Marche, Ancona, Italy
[d] Obstetrics and Gynecology Unit, Profili Hospital, Fabriano, Italy
[e] Department of Life and Environmental Sciences, Polytechnic University of Marche, Ancona, Italy
[f] Division of Reproductive Endocrinology and Infertility, University of Florida College of Medicine, Gainesville, FL, USA

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ABSTRACT

Uterine leiomyomas, commonly called fibroids, are the leading indication for hysterectomy in the United States. Incidence increases with age from menarche to perimenopause. Regardless of their generally benign neoplastic character, uterine fibroids are responsible for significant morbidity in a large proportion of women of reproductive age.

As uterine leiomyomas generally regress after menopause, the general attitude when women are approaching perimenopausal age is to avoid treatment and wait for menopause and a spontaneous resolution. When it is decided that treatment is needed, the choice for peri- and postmenopausal women is often hysterectomy.

In the present paper we point out aspects of leiomyoma management that are unique to the perimenopausal period, and address future directions in care.

We conclude that the management of uterine leiomyomas should not be overlooked in the perimenopausal period merely on the grounds that the pathology and symptoms are unlikely to persist after the menopause; on the other hand, opting for a quick resolution with total surgical removal of the uterus, as seen at present in many cases, should be avoided.

Studies on the impact of therapy for fibroids should be performed not exclusively with premenopausal women but also with perimenopausal and postmenopausal women, both users and non-users of hormone replacement therapy.

Contents

* Corresponding author at: Department of Experimental and Clinical Medicine, Faculty of Medicine, Polytechnic University of Marche, via Tronto 10/a, 60020 Ancona, Italy. Tel.: +39 0712206270; fax: +39 0712206087.
E-mail address: p.ciarmela@univpm.it (P. Ciarmela).

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1. Introduction

Uterine leiomyomas, commonly called fibroids, are the leading indication for hysterectomy in the United States [1]. The condition is especially common among black women, a group with an estimated cumulative hysterectomy rate for fibroids of 20% by age 45 [2].

Fibroids are benign smooth-muscle tumors of clonal origin [3]. Their incidence increases with age from menarche to perimenopause [4]. Both estrogen and progesterone stimulate their development. Although the mechanisms by which these hormones influence tumor onset and progression are not fully understood, their actions are mediated at least in part by growth factors [5,6].

Fibroids are classified by their location in the uterus. Intramural fibroids develop from within the uterine wall and are more likely to enlarge and distort the uterine cavity. Submucosal fibroids develop from myometrial cells below the endometrium and protrude into the uterine cavity. Subserosal fibroids, which originate from the serosal surface of the uterus, can be pedunculated or can extend into the ligaments of the uterus.

Regardless of their generally benign neoplastic character, uterine fibroids are responsible for significant morbidity in a large segment of the female population. Myomas commonly regress after the menopause, when the atrophy of the endometrium starts and uterine bleeding finishes. Consequently, the general attitude when women are approaching perimenopausal age is to avoid treatment and wait for menopause and a spontaneous resolution. Nonetheless, although fibroids are mainly a problem in the reproductive years, there are reports of problems from fibroids in postmenopausal women.

In the present paper we point out aspects of leiomyoma management that are unique to the perimenopausal period, and address future directions in care.

2. Clinical features, diagnosis and symptomatology

Fibroids cause significant morbidity. The variable symptomatology often begins as an insidious feeling of pelvic discomfort. Clinical symptoms may include pelvic pressure, congestion, heaviness, bloating, urinary frequency, constipation, dyspareunia, reproductive dysfunction and abnormal bleeding.

The symptoms associated with leiomyomas vary with their size, number and location, as well as with the concomitant degenerative changes [7–9]. The prevalence of clinically significant myomas declines following the menopause [10].

Premenopausal women with abnormal uterine bleeding constitute a large proportion of gynecologic consultations [11]. The condition often results in a variety of diagnostic tests being ordered. The most common pathologies associated with abnormal uterine bleeding in premenopausal women are submucous fibroids, endometrial polyps and endometrial hyperplasia. The accurate diagnosis of these conditions may result in minor surgical or medical treatments being directed at the specific pathology and may avoid the need for major surgery.

Fibroids can be diagnosed by examination of the pelvis, but this is, at best, a presumptive diagnosis. An enlarged uterus, irregular when there are multiple fibroids, firm on palpation, is suggestive. Any mass in the pelvis that moves with the uterus is suggestive of fibroids; ovarian masses generally do not move with the uterus.

An ultrasound scan will confirm the diagnosis. In particular, sonohysterography may be useful in diagnosing submucosal fibroids. In this procedure, the uterine cavity is filled with saline. The technique can delineate small masses near the endometrium which may be missed on ordinary ultrasonography.

MRI is preferred when precise myoma mapping is required (usually for presurgical evaluation), but it is the most expensive modality for evaluating fibroid tumors.

Hysteroscopy is useful in diagnosing submucous myomas; it is often performed in the doctor's office.

2.1. Abnormal vaginal bleeding

Excessive menstrual bleeding occurs in 30% of patients with leiomyomas and is often the sole symptom reported [12]. Menorrhagia is defined as prolonged vaginal bleeding with an increase in the amount of blood loss per month [13]. The blood loss can be the cause of iron deficiency and discomfort. However, the exact mechanism by which fibroids cause abnormal bleeding is unknown [14], and the number, volume and location (subserosal or intramural, anterior or posterior position) of myomas are not related to characteristics of the woman's menstrual cycle. Moreover, the presence of myomas does not necessarily lead to menorrhagia, and other etiologies should be considered [15].

Explanations for the vaginal bleeding in patients with leiomyomas [7] have included interference with normal uterine contractility, endometrial ulceration over submucous leiomyomas, compression of the venous plexus within the myometrium [16,17], increased endometrial surface area [18] and increased vascularity of the uterus. Endometritis is a frequent histological finding within the endometrium overlying submucous myomas [19] and this aspect could worsen the hypermenorrea. Submucous fibroids may also cause intermenstrual bleeding by ulcerating or warping the endometrial surface [20].

2.2. Pelvic pain

Pelvic pain, pressure and dysmenorrhoea are three common symptoms in women with leiomyomas and may be associated with increased menstrual flow. The pelvic and abdominal discomfort that these women experience is often described as a sensation of pressure, and may be similar to the discomfort that women experience during pregnancy [7].

The location of the pain is linked to the location of the fibroids. Posterior fibroids may be responsible for lower back pain, while anterior myomas may cause bladder discomfort and increased urinary frequency. Leiomyomas that occupy the pelvis may cause difficulty with urination and/or defecation and dyspareunia [7].

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