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Hormonal Therapy for Inguinal Endometriosis

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ABSTRACT

Inguinal endometriosis is an infrequent extragenital manifestation of endometriosis. Optimal management involves the radical surgical excision of the lesion, supplemented by hormone therapy. Recent case reports and retrospective analyses have indicated that hormone therapy utilizing gonadotropin-releasing hormone agonist, dienogest, or oral contraceptives is the preferred initial therapeutic approach when the patient declines surgery.

Abbreviations: GnRHa: Gonadotropin-Releasing Hormone Agonist, OC: Oral Contraceptives, MR: Magnetic Resonance

Introduction

Endometriosis is characterized by the presence of endometriosis-like tissues outside the uterine cavity [1,2]. It predominantly develops lesions in the pelvic gonadal organs and rectovaginal pouch, less commonly affecting the gastrointestinal and urinary tracts, and rarely occurring at distant sites such as the umbilicus and thoracic cavity [3,4]. Inguinal endometriosis, an uncommon presentation of extra-pelvic endometriosis, typically manifests as a tender, fixed inguinal mass of small size. This condition exhibits changes in mass size and pain that correlate with the menstrual cycle. It is observed in approximately 0.5% of endometriosis cases [5,6]. Surgical intervention has been frequently reported as the optimal diagnostic and therapeutic strategy [7-9], and, therefore, there is limited literature on hormonal treatment.

Hormonal Treatment

(Table 1) provides a summary of reported cases of inguinal endometriosis managed through hormonal therapy. Tanaka and Umesaki reported complete remission of catamenial right inguinal pain and right shoulder joint pain associated with extraperitoneal endometriosis following gonadotropin-releasing hormone agonist (GnRHa) therapy. Several cycles of oral contraceptive (OC) therapy exhibited inadequate effects on her both pain [10]. In a retrospective case series, 8 patients with inguinal endometriosis received hormonal treatment without surgery. Dienogest demonstrated pain and swelling improvement in 75% (3 out of 4) cases, although symptoms persisted in one case. Pain improved in 1 out of 4 patients receiving OC therapy. Among the 3 cases showing no improvement, all experienced persisting pain. A small subset of patients did not receive any treatment [6,11]. We encountered a critical case featuring a painful mass in the right inguinal area, particularly during menstrual cycles. Three administrations of gonadotropin-releasing hormone agonist (1.88mg) with a 4-week interval led to complete remission of inguinal endometriosis and significant improvement of the ovarian lesion (Figure 1) (manuscript in preparation).

Table 1: Reported cases of inguinal endometriosis with hormonal therapy.

No.	Patient Age	Symptoms	Medicine	Ref.
1	41	Right inguinal mass and pain	Dienogest	[11]
2	43	Right inguinal mass and pain	Dienogest	[11]
3	42	Right inguinal mass and pain	Dienogest	[11]
4	43	Right inguinal mass and pain	Dienogest	[11]
5	27	Right inguinal mass and pain	OC	[11]
6	34	Right inguinal mass and pain	OC	[11]
7	31	Left inguinal mass and pain	OC	[11]
8	29	Right inguinal mass and pain	OC	[11]
9	47	Right inguinal pain and right shoulder pain	GnRHa	[10]
Current case	41	Right inguinal mass and pain	GnRHa	

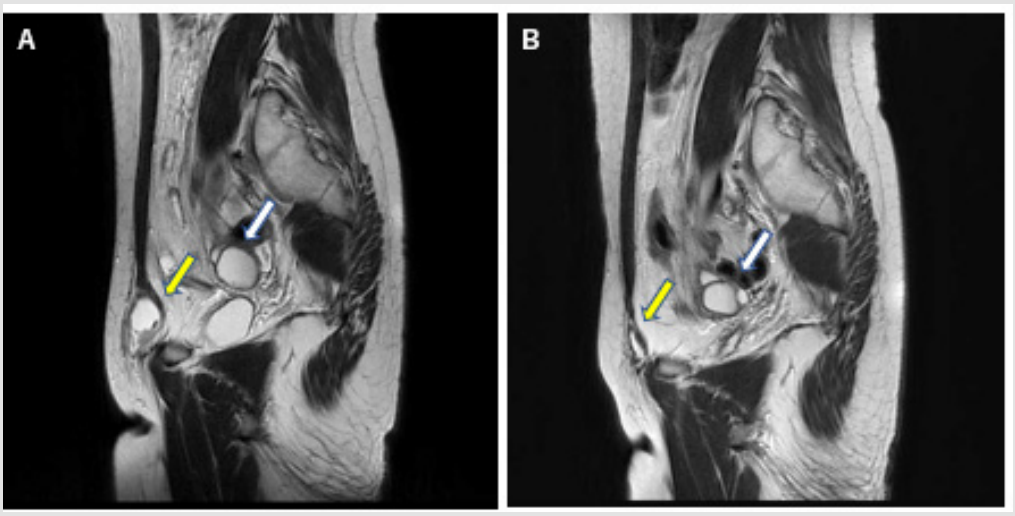

Figure 1:
A. A case of inguinal endometriosis. A 41-year-old woman presented with a painful mass in her right inguinal area, particularly during menstrual cycles. Magnetic resonance imaging (MRI) sagittal images (T2-weighted) revealed a cystic mass (2 by 2 cm) in the right inguinal area (yellow arrow) and an ovarian lesion (white arrow).
B. Three administrations of gonadotropin-releasing hormone agonist (1.88mg) with a 4-week interval led to complete remission of inguinal endometriosis and significant improvement of the ovarian lesion.

Discussion

Theoretically, hormonal therapy, rather than surgical intervention, may be considered the primary choice due to the multifocal nature of endometriosis in most patients [12,13]. In cases of severe inguinal endometriosis where surgery is not desired, the ideal medicinal treatment should possess prolonged, curative, and safe properties capable of reducing endometriotic lesions. OC is highly safe medications with minimal adverse effects [14,15], making them a current first-choice option for maintenance therapy after remission-induction. However, OC therapy exhibits a slow onset of action, rendering it unsuitable for rapidly ameliorating symptoms. GnRHa therapy can promptly induce complete remission. Inguinal endometriosis is challenging to identify and often mistaken for more common conditions such as hernias, soft tissue tumors, lymphadenopathy, cysts, granulomas and hydroceles. Catamenial symptoms (e.g., variations in mass size and tenderness) and magnetic resonance (MR) imaging findings can raise suspicion for inguinal endometriosis [4]. Frequently, patients undergo surgical procedures with a preoperative diagnosis of hernia, and endometriosis is incidentally discovered or identified through histologic examination [6,16]. Surgical excision may be the treatment of choice for inguinal endometriosis, but hormone medications can alleviate symptoms associated with endometriosis and serve as an alternation for patients who do not want surgery.

Conflict of Interest

The authors declare that they have no conflict of interest.

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