# ADENOMYOSIS: A POTENTIALLY MISSED, NEGLECTED AND INAPPROPRIATELY MANAGED CONDITION

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Adenomyosis is a benign disease of the uterus due to the presence of ectopic endometrial glands and stroma, deep within the myometrium with adjacent reactive myometrial hyperplasia. The disease can be diffuse or focal (adenomyoma).

The clinical findings are non-specific and therefore the diagnosis is difficult. Adenomysis can cause severe menorrhagia and dysmenorrhoea. The patients are usually multiparous in their 40s, but can be younger, nulliparous, presenting with infertility. The uterus maybe enlarged and tender. In research settings and practices with special interest in adenomyosis, transvaginal sonography (TVS) can achieve high accuracy. In real-world practice, many adenomyoses are missed or mistaken as uterine fibroids. Fibroids are present in 40% of women. Adenomyosis is also a very common finding on hysterectomy specimen. The presence of fibroids can mask the presence of adenomyosis on TVS. MRI is more accurate in detecting subtle diffuse adenomyosis and in differentiating fibroids from adenomyomas.

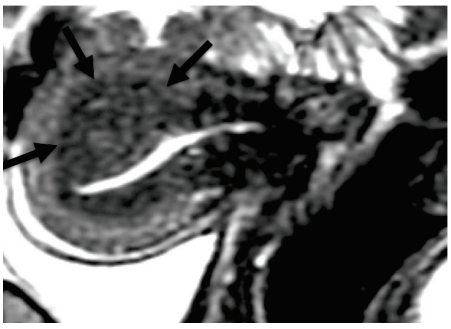

*Figure 1a. MRI showing adenomyoma before UAE.*

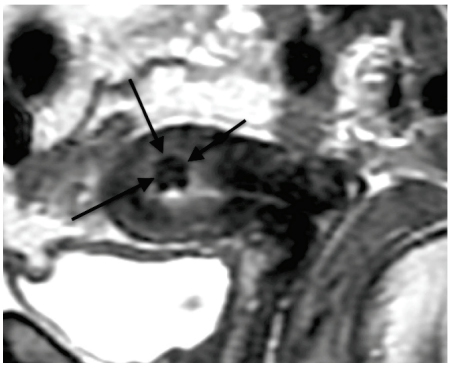

*Figure 1b. MRI showing shrunken "scarred" adenomyoma post UAE.*

Focal adenomyosis or adenomyoma can simulate fibroid on TVS. Open, laparoscopic or hysteroscopic resections may have been attempted with the wrong pre-operative diagnosis. Unlike fibroid, the boundary with the adjacent myometrium is indistinct and therefore adenomyoma cannot be enucleated. The resection is often abandoned. Excision of a large part of the myometrium, as may be needed to remove all affected areas, may lead to difficulty in wound apposition, decreased expansive capacity of the uterus, weakness and ultimately uterine rupture during pregnancy.

Endometrial ablation heats only a depth of few millimeters of tissue and is not useful except for the very superficial type of adenomyosis. It can seal off endometrial sinuses and potentially making dysmenorhea worse. In the setting of painful menorrhagia and an apparently normal TVS, it is prudent to exclude adenomyosis by MRI before recommending endometrial ablation.

Laparoscopy is performed when endometriosis is suspected on clinical and sonography findings (such as presence of chocolate cysts). Hysteroscopy is indicated for suspicion of endometrial pathology and polyps on TVS. These invasive procedures however are not indicated primarily for the diagnosis of adenomyosis. There is no specific blood test for adenomyosis. CA 125 may be raised but this is neither sensitive nor specific.

Adenomyosis is often neglected due to the lack of specific treatment. Clinicians have been focusing on symptomatic relief of menorrhagia and dysmenorrhoea. NSAID and tranexamic acid are used to treat menorrhagia. Oral progestrogen might have been tried but may not be tolerated due to side effects such as headache, nausea, bloating sensation and mood changes. Low-dose, continuous combined oral contraceptives with withdrawal bleeds every 4–6 months maybe used for symptom control. Progestrogen-releasing IUD (Mirena) has patient satisfaction rate of 56% at 1 year, 66% at 2 year and 73% at 3 year. It may not be immediately effective. The side effects are irregular spotting or continuous bleeding in the first few months, acne, weight gain, bloating sensation and mood changes. Gonadotropin-releasing hormone (GnRH) agonist can be used only in the short term, due to its side effects of hypoestrogen state such as hot flushes, mood changes and osteoporosis.

In the past, hysterectomy is the only definitive treatment for adenomyosis. Since 1995 uterine artery embolisation (UAE) has been used to treat symptomatic fibroids. Its safety and effectiveness has been well established, including 6 randomised control trials, demonstrating no difference in quality of life outcome, compared with hysterectomy. The same procedure has been found useful in treating patient with adenomyosis. In our own UAE series, 29% of our patients have adenomyosis. Despite this, we have 96% success rate in controlling menorrhagia and 93% overall patient satisfaction rate. Currently we are reviewing our series of over 100 adenomyosis patients treated with UAE and our patient satisfaction rate is around 90%.

UAE data on adenomyosis is also available from 511 women from 15 studies (1999 – 2010). For pure adenomyosis, relief was achieved in 83% short-term and 65% long-term. For combined adenomyosis and fibroids, relief was achieved in 93% short-term and 82% long-term. The hysterectomy rate is around 13%, suggesting that 87% of women can potentially be spared of hysterectomy.

There were no deaths or serious adverse events reported. Minimal side effects, cost-effectiveness benefits, and retention of fertility render UAE an attractive treatment option.

## CONCLUSIONS

Adenomyosis can be a debilitating condition significantly affecting women's quality of life. Severe menorrhagia and dysmenorrhea should raise the suspicion so that TVS is scrutinised. Presence of fibroids can potentially mask the presence of adenomyosis. MRI in selected cases maybe required to confirm the diagnosis. When a trial of simple measures failed, uterine artery embolisation is a safe, effective and much less invasive alternative to hysterectomy.

*References available on request.*