

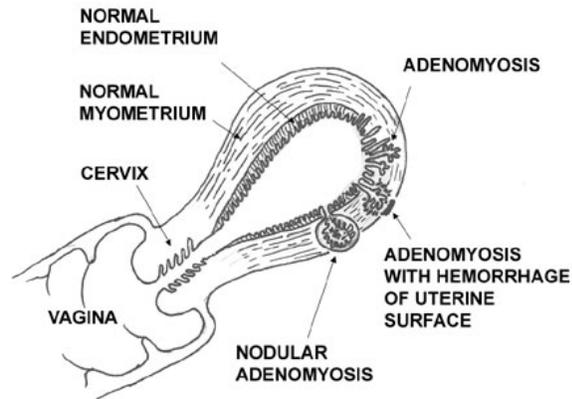
ADENOMYOSIS

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Definition

Adenomyosis is a common benign condition of the uterus in which the endometrium (the mucous membrane lining the inside of the uterus) grows into the myometrium (the uterine musculature located just outside the endometrium). The endometrium and myometrium under normal circumstances are adjacent to one another, discrete neighbors. In adenomyosis, the endometrium boorishly implants itself in the myometrium. The myometrium may respond to this intrusion with muscular overgrowth. If an island of endometrial tissue is contained and circumscribed within the myometrium, it forms a nodule called an adenomyoma. Adenomyosis is made up of adeno (gland) + myo (muscle) + osis (a condition of) = a condition of glandular tissue (referring to the endometrium) in the muscle (the myometrium).



Clinical Presentation

The most frequently cited profile of adenomyosis symptomatology includes the triad of abnormal uterine bleeding, secondary dysmenorrhea, and an enlarged, tender uterus. Other symptoms, such as dyspareunia and chronic pelvic pain, present less commonly. As adenomyosis frequently is accompanied by other pelvic pathology, it is often difficult to attribute symptoms solely to this condition. In addition, up to 35% of affected patients may be asymptomatic. Abnormal uterine bleeding encompasses menorrhagia, which has been reported to affect as many as two thirds of adenomyosis patients, as well as metrorrhagia, which occurs somewhat less frequently. Although the exact mechanism remains unclear, the increased bleeding may result from the greater endometrial surface area found in enlarged uteri.

Uterine pain can come in several forms. The most obvious would be uterine cramping with the menstrual flow, but some women can have this cramping begin days or even weeks before the flow. A few unlucky women suffering from adenomyosis may have uterine cramping all month long, with particular aggravation during the menstrual flow.

This more chronic irritation can lead to other types of pain. If the uterus hurts like a sprained ankle, then anything that physically hits the uterus may be painful. The uterus lies directly at the end of the vagina and is hit directly during sexual intercourse. If the uterus is irritated by adenomyosis, painful intercourse can result, particularly around the time of the menstrual flow.

To its rear, the uterus can also be hit by stool passing by in the rectum, and this can produce pain with bowel movements.

Expansion and contraction of the urinary bladder can also affect the uterus, and some patients may have pain during urination as a result.

Diagnosis

The personal medical history is obviously important in the diagnosis of any medical condition. Unfortunately the symptoms of adenomyosis (pain with the menstrual flow, painful sex, painful bowel movements with the flow, etc.) can closely resemble the primary symptoms of endometriosis. Careful questioning and listening can help to begin to distinguish the two.

Occasionally a patient will describe this pain as being like the uterine cramping she experienced during labor and delivery. This may be helpful in pointing a finger at the uterus rather than at endometriosis.

Many patients will point at the center of the pubic bone as the source of their pain and may be convinced that they can distinguish the uterus as the source of the pain. The doctor should listen to these patients and believe them.

While patients with endometriosis sometimes describe a sense of cramping from their disease, they seldom seem to relate this cramping to a definite uterine source.

Another helpful part of the history is that the pain of adenomyosis seems to begin later in life than does the pain of endometriosis. Patients with endometriosis describe pain beginning virtually with the onset of the menstrual flows, and additional layers of pain can be added into the mid-20's. Patients with adenomyosis seem to begin experiencing pain from this disease in the early 30's.

The uterus has physical attachments to the lower back via the uterosacral ligaments, to the upper thighs through the round ligaments, and to the umbilical area through the urachus and obliterated umbilical arteries that come off the uterine arteries. Therefore many patients with a uterine source of pain may describe pain radiating to these areas. This may help differentiate uterine pain from endometriosis pain.

Endometriosis pain can radiate to the lower back in some patients with invasive disease of the uterosacral ligaments, but rarely radiates pain to the upper legs or belly button.

The physical exam may be helpful since the uterus may be tender with adenomyosis, while the rear of the pelvis may be tender with endometriosis. Unfortunately, not all pelvic exams are done with a view toward palpation of the uterus individually or the rear of the pelvis individually to see if either or both areas are painful. Many doctors are mainly interested in the size, shape and position of the uterus and the size of the ovaries, not whether there are specific points of tenderness.

Diagnostic Tests

Ultrasonography.

The enhanced resolution of transvaginal ultrasound makes it superior to the transabdominal approach. Several sonographic criteria for diffuse adenomyosis have been described and are summarized:

- Ill defined hypoechoic areas
- Hetrogeneous myometrial echotexture
- Small anechioc lakes
- Asymetrical uterine enlargement
- Indistinct endometrial-myometrial border
- Subendometrial halo thickening

Magnetic Resonance Imaging (MRI).

MRI has been applied to pelvic pathology, and preliminary results in adenomyosis patients are encouraging. Adenomyosis is characterised by disruption of the normal myometrial zonal anatomy, which is best, demonstrated on T2-weighted images where the contrast between the low signal inner myometrium (junctional zone) and the intermediate signal outer myometrium is maximal.

Diffuse adenomyosis is characterised on T2-weighted images by an irregular and diffuse thickening of the junctional zone sometimes with underlying high signal foci. Pathologically this has been shown to represent smooth muscle hyperplasia characterised by closely packed smooth muscle fibres that are poorly orientated and less vascular than the smooth muscle of the normal inner myometrium. It is the smooth muscle changes that are easily recognized by MR rather than foci of heterotopic glandular epithelium and stroma.

Serum Markers CA-125

Serum Markers CA-125 is an antigen produced by ovarian epithelial cells. It is secreted into the blood, and its use has been advocated in a variety of gynecologic conditions. Although some have used it to predict recurrences of nonmucinous ovarian carcinomas, others have attempted to assess nonoperatively the status of recurrent endometriosis by determining serial CA-125 levels. Serum cystine aminopeptidase and leucine aminopeptidase levels have also been used as potential markers for adenomyosis. Levels of these enzymes have been reported to be elevated in several benign and malignant pathologic conditions involving the uterus and ovary.

Adenomyosis in Pregnancy

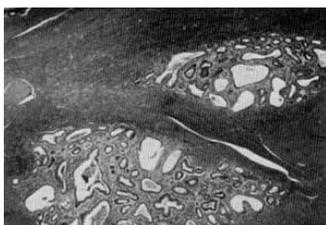
On the basis of the only large study of adenomyosis in pregnancy, an analysis of 151 uteri obtained at cesarean hysterectomy, it appears that the incidence of this condition is 17.2% (Sandbert and Cohn, 1962). Although 50 years ago it was suggested that adenomyosis in pregnancy markedly increased the risk of obstetric complications-specifically, postpartum hemorrhage, uterine atony, and uterine rupture-that has not proved to be the case (Haydon, 1942). In his excellent review of this subject, Azziz noted only 29 cases of complications in more than 80 years' worth of literature, a surprisingly low figure in light of the incidence of this entity (Azziz, 1986).

Associated Gynecologic Pathology

Adenomyosis rarely occurs as an isolated finding (See Table). Up to 80% of adenomyotic uteri are associated with such conditions as leiomyomata, endometrial hyperplasia, peritoneal endometriosis, and uterine cancer. The fact that all of these entities, except endometriosis, are associated with prolonged estrogen exposure has been frequently cited as evidence that adenomyosis results from hyperestrogenemia. Adenomyosis occurs most frequently in association with leiomyomata (up to 57% of the time), and the similarity of symptomatology in these two conditions serves to make accurate preoperative diagnosis very difficult. Despite their obvious similarities, adenomyosis and pelvic endometriosis coexist in only 28% of women or less.

TABLE Association of Endometriosis with Other Gynecologic Pathology

Condition	Reported Association (%)
Uterine leiomyomata	19-57
Endometrial hyperplasia	7-33
Endometriosis	0-28
Salpingitis isthmica nodosa	1-20



Salpingitis isthmica nodosum (SIN), an inflammatory process of uncertain etiology affecting the proximal fallopian tube, also occurs in association with adenomyosis. Abnormalities of the endometrial lining ranging from hyperplasia to adenocarcinoma are frequently associated with adenomyosis. Forty-four per cent of adenomyotic uteri with endometrial hyperplasia also demonstrated hyperplasia in the adenomyotic foci. The vast majority of these cases have demonstrated simple endometrial hyperplasia; however, atypical hyperplasia can occur (See Fig.).

Adenomyosis (Internal Endometriosis)

Adenomyosis frequently occurs in association with endometrial adenocarcinoma. In addition to arising within the same uterus as adenomyosis, adenocarcinoma arises from within adenomyotic foci. It appears as though the coexistence of adenomyosis does not impact upon the prognosis for patients with endometrial adenocarcinoma. Although no one has specifically reported on the incidence of adenocarcinoma within adenomyotic uteri, it is thought to be relatively rare.

Treatment

The mainstay of both the diagnosis and treatment for adenomyosis is hysterectomy. The following Homoeopathic Medicines can be tried, however, these medicines provide partial relief only:

1. **Calcarea Carb:** Bearing down in pelvis, Sense of weight & soreness in uterus, A sense of shuddering & painful pressure within uterus, Menses too early, lasts too long & too profuse, resulting in to anemia, Cutting pains in uterus during menstruation
2. **Calcarea Flour:** Very hard & large Fibriods in uterus.
3. **Phosphorus:** Menses profuse bright red, metrorrhagia, large fibroids, myoma & tumors of uterus.
4. **Hydrastin Mur:** Metorrhagia from Fibroid Tumors
5. **Silicea:** Myoma, Uterine fibroids, Discharge of blood between menstrual periods with paroxysms of icy coldness of over whole body.
6. **Fraxinus Amer:** It is indicated in uterine fibroids with bearing down sensations. Enlarged uterus, subinvolution & prolapse of uterus, Dysmenorrhoea, profuse menses.
7. **Aur Mur Nat:** As per Dr. Burnett this is the most similar remedy in Adenomyosis.
8. **Thlapsi BP:** Metrorrhagia with violent uterine colic, scarcely recovers from one period before another begins, Uterine fibriods with cramps & expulsion of clots, sore pain in uterus worse rising.

Note: As adenomyosis is not mentioned in Homoeopathic literature/Materia Medica, the symptoms related to Uterine Fibroids/Tumors may be considered for finding out the right remedy.

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