1. Introduction

Definition
Ectopic and Cytogenic stroma in the myometrium beyond basal layers

Prevalence
Hystology in the hysterectomy reveals adenomyosis in 20~60% of cases.

Symptom
Dysmenorrhea, menometrorrhagia

Pathology
defined as the ectopic presence of endometrial glands and stroma within the myometrium, well beyond the normal anatomic interface with the endometrium

Pathogenesis
• Most widely held theory
  : downward invagination of the endometrial basalis layer into the myometrium.
• Mechanisms that incite deep myometrial invasion are unknown.
• An alternative theory is that adenomyosis is caused by metaplasia of pluripotent müllerian tissue.

2. Risk factors

• Parity and age are significant risk factors for adenomyosis. Specifically, nearly 90 percent of cases are in parous women, and nearly 80 percent develop in women in their 40s and 50s.
• history of chronic endometritis, abortion, uterine trauma from childbirth, and hyperestrogenism.
3. Diagnosis

- Cancer antigen 125(CA 125)
- Imaging

Sonographic direct sign
- anechoic subendometrial microcysts in the myometrium (2-4 mm in diameter)
- the myometrium has a non-homogenous appearance
  - hyperechoic linear striations within the myometrium
  - small hyperechoic subendometrial nodules, pseudonodular hypoechoic zones with indistinct contours
  - poorly defined or thickened endometrial-myometrial junction.

Magnetic resonance imaging.
- Pelvic MRI is superior to transvaginal sonography in terms of specificity and sensitivity for both focal and diffuse adenomyosis
- The T2-weighted sequences on MRI is more effective, with sensitivity of 70% and specificity of 86%.

Positive diagnosis of adenomyosis on MRI
- Globular on MRI and on sonography
- Asymmetrical thickening of the myometrial walls (more common at the posterior wall)
- Junctional zone ≥12 mm
- Greatest junctional zone thickness to total myometrium > 40-50%
- Foci of high T2 signal intensity ± high T1 Fat-Saturation signal intensity

4. Treatment

Medical treatment
- The only guaranteed treatment for adenomyosis is total hysterectomy.
- There is no large or controlled studies of medical or limited surgical therapy of this disease.
- Main objective of treatment is relief from pain and bleeding
- Conservative therapy for symptomatic adenomyosis is similar to that for primary menorrhagia or dysmenorrhea.
  - NSAID, Combined oral contraceptives, progestin-only regimen
  - Levonorgestrel-releasing intrauterine system(Mirena)
  - GnRH agonist, Danazol

Surgical treatment