



# Endometriosis and urinary tract

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**The estimated prevalence of endometriosis among population groups varies depending on the presenting symptoms.**

- Infertile women are seven to ten times more likely to have endometriosis than their fertile

- The mechanism by which endometriosis develops is unknown
- Theories for the histogenesis of endometriosis

- Transtubal regurgitation or retrograde menstruation
  - Direct implantation of endometrial cells
  - Metaplasia of celomic epithelium
  - Lymphatic dissemination
  - Hematogenesis spread
  - Activation of embryonic cell rests
  - Activation of wolffian rests
  - Metaplasia of urothelium
  - Hereditary factor
  - Immunologic factor

The essential diagnostic criterion is the presence of endometrial tissue, both stroma and glandular elements.

- 1- Cancer antigen-125 (CA-125), Increased
- 2- placental protein 14 (PP14) have been related specifically to the presence of endometriotic cysts and deep endometriosis.

**Peak age incidence  
between 25 and 40  
years**



# Symptoms Associated with Endometriosis in urinary tract system

Flank pain

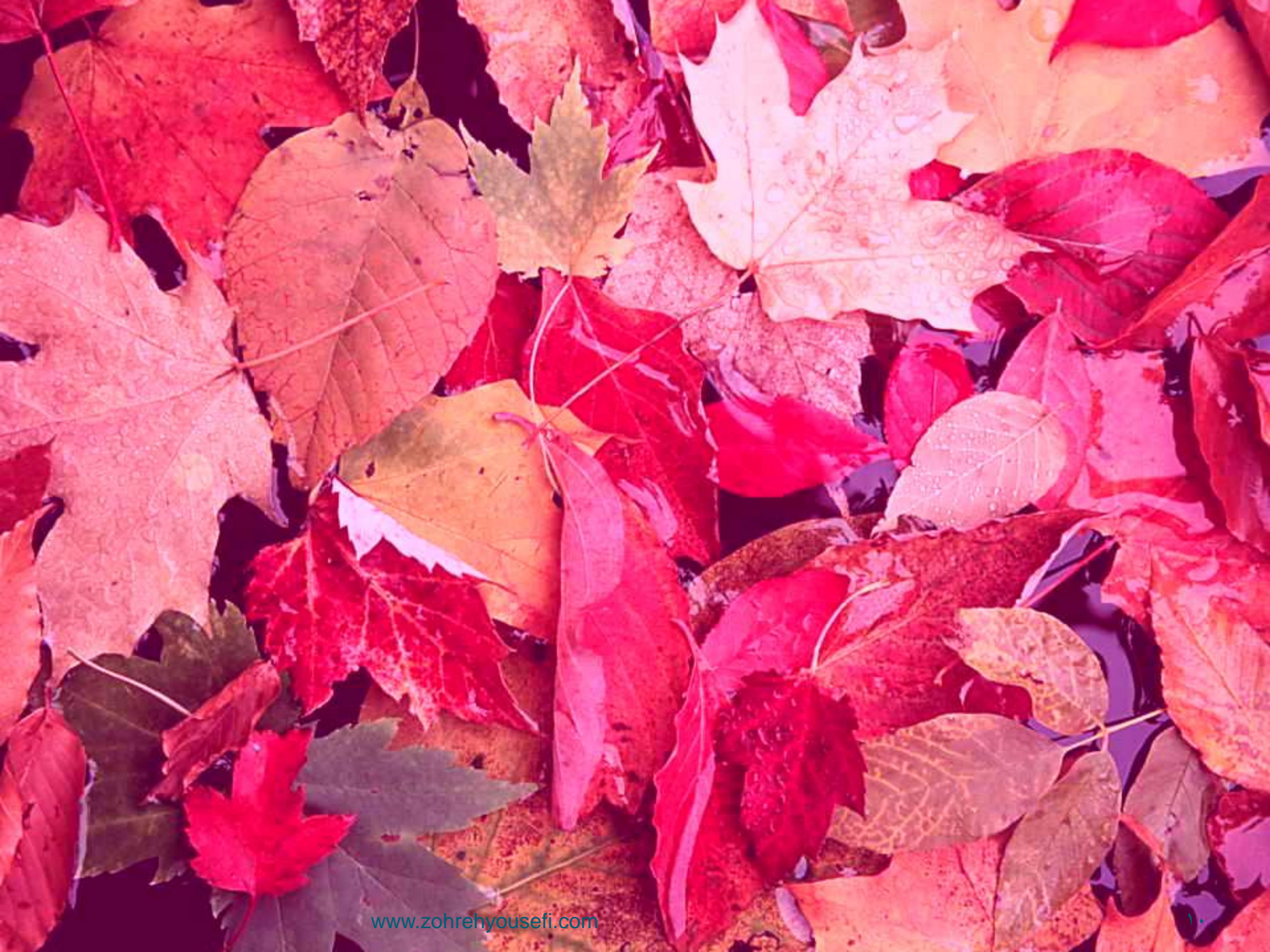
Back pain

Abdominal pain

Urgency

Frequency

Hematuria



- The radiographic findings in endometriosis of the ureter are nonspecific , at times resembling stricture or tumor of the pelvic ureter

- Retrograde pyelography is helpful in delineating the lower ureter in general , it is impossible to pass a ureteral catheter beyond the obstruction



When ureteral obstruction is present , symptoms range from mild flank pain to urosepsis and renal failure , but in most instances , urologic signs or symptoms are so subtle that they go unnoticed

- Two types of ureteral involvement have been described intrinsic and extrinsic
- Extrinsic ureteral compression by endometriosis presents four times more frequently than intrinsic involvement

- With intrinsic involvement , endometriosis involves the ureteral wall , and the process can extend into the ureteral lumen

Intrinsic endometriomas of the ureter are rarer than extrinsic lesions, they are more likely to cause cyclic hematuria



- Only a minority of patients with ureteral involvement experience hematuria

- Extrinsic involvement results from scarring , fibrosis , and dense adhesions associated with the endometrioma

# Therapies of endometriosis

- Therapy is usually initiated for the correction of pain, infertility, or a persistent pelvic mass.

- Treatment of mild and moderate endometriosis with hormonal preparations may not offer any advantage over expectant management

Nonsteroidal anti inflammatory  
agents

Oral contraceptives

Progestogens

Danazol

GnRH agonists



- Surgery is indicated for correction of pain, infertility
- extensive pelvic endometriosis
- hormonal manipulation fails
- perform surgical resection of endometriosis
- laparoscope or open abdomen

- Conservative surgical treatment of bladder endometriosis is effective in ensuring long-term relief in most cases



This mode of treatment is not recommended is not recommended , because the ureteral obstruction is secondary to the dense adhesions associated with the endometriosis

The procedure of choice for patients with severe ureteral obstruction and for women who do not desire further pregnancies:

Bilateral oophorectomy ,total abdominal hysterectomy , and ureterolysis

- Periureteral vessels must remain intact to prevent ischemia and resultant fistula formation.

- Fibrosis and stricture secondary to ureteral involvement ureterolysis is not sufficient , partial ureterectomy must be done with ureteroureterostomy

- If the peritoneum is adhered and the lesion cannot be dissected, the ureter is likely involved in the disease process.

Ureteroneocystostomy should be considered.

- When a more conservative operative procedure is utilized , careful follow-up is required to ensure relief of the ureteral obstruction and to ensure that the problem does not recur.

A red rose is shown inside a clear glass sphere. The sphere is placed on a dark, reflective surface, which creates a shadow of the rose and the sphere. The background is dark and out of focus.

**Thank you**