RECURRENT SIMPLE CYSTITIS IN WOMEN

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- A 58-year-old woman came to the clinic complaining of dysuria and frequency

- PMH : HTN , Frequent cystitis (3 times in 7 months)
- DH : Valsartan 160mg daily
- PE : No Pathological findings

Recurrent Cystitis

- Recurrent UTI : > 2 infections in 6 months or
  > 3 infections in 1 year

UTI recurrences are typically acute simple cystitis rather than complicated UTI.

Reinfection rather than relapse

UTI

- Affect > 50% of women in their life time
- Almost half of these women experiencing a recurrence in 6-12 months
- A subset of woman experience rUTI (2-10%)

Risk Factors

- Functional disability
- Recent sexual intercourse
- Diaphragm-spermicide use
- Even spermicide-coated condom use
- Frequency of sexual intercourse
- Prior history of urogynecological surgery
- Incomplete blader emptying
- Urinary incontinence
- Having a mother with a history of UTIs
- History of premenopausal UTI
- Cystocele
- Blood group Ag secretory status

Risk Factors

- Menopause is a predominant risk factor for rUTI

urogenital microbiome undergoes changes as women age, often

reducing a woman s natural defense mechanisms against UTI

The healthy premenopausal vagina is known to be largely colonized by Lactobacillus species, which depend on glycogen produced by vaginal epithelial cells.

Lactobacilli ferment glycogen and create lactic acid, which is inhibitory to other bacteria.

Lactobacilli also maintain vaginal health by preventing adherence of uropathogens to the vaginal epithelium.

Diagnosis

- In postmenopausal women with frequent UTI, the diagnosis of acute UTI should be made using a combination of the symptom assessment and urine diagnostic studies.

- Up to 50% of postmenopausal women have GSM.

- overactive bladder (OAB), and bacteriuria which increase with age

Diagnosis

- U/A
- U/C

- Distinguishing reinfection versus relapse

Relapse: < 2wk of completion of treatment

with the same uropathogen strain

- U/A SG: 1018

  Pr : Neg

  wbc : 18-20

  RBC : 7-10

  Bacteria : moderate

  Nitrit : Neg

U/C : E. coli

Diagnosis

- CT or Ultrasound

In patients with relapsing infection

Repeated isolation of Proteus spp

History of passing stones

Hematuria that persists following eradication of infection

Women who have voiding issues should be referred for urologic or urogynecologic evaluation

- Ultrasonography of urinary system : Nl

prevention

- Liberal fluid intake
- Contraception modification
- Postcoital voiding
- Hygiene
- Topical strogen for postmenopausal women

Treatment

- **Antibiotic –sparing strategies**
- Methenamine
- Cranberry products, inhibits adherence of uropathogens to uroepithelial cells,
- Probiotics, or Vaginal capsule containing a strain of Lactobacillus

Treatment

- Antibiotics

- Nitrofurantoin 50 or 100 mg once daily
- Trimethoprim-sulfamethoxazole 40/200 mg once daily or three times weekly
- Cephalexin 125 or 250 mg once daily
- Cefaclor 250 mg once daily
- Fosfomycin 3g every 7 to 10 days

- Fluroquinolones if no other options
- Postcoital prophylaxis

These items were prescribed for our patient :

- Nitrofurantoin 100mg every 12 h for 7 days

- Fluid intake
- Consult the oncologist or gynecologist for use of vaginal estrogen
- Cranberry products

Investigational Preventive Strategies

- Vaccines (injection or by a vaginal suppository)
- Oral immunostimulants (OM-89, an extract of 18 different serotypes of heat killed uropathogenic E.coli)