Pelvic inflammatory disease diagnosis and management nursing essay

Pelvic inflammatory disease is an infection which causes wide variety of infection from upper to lower genital tract.(1) It ascends from cervix or vagina to peritoneal cavity include endometritis, salpingitis, parametritis, oophoritis, tuboovarian abscess and pelvic peritonitis. (2, 3) PID is a major problem in public health consequences because it is related to fallopian tube inflammation which can lead to infertility as a final complication.(1) PID is polymicrobial disease, so some sexually transmitted microorganisms are associated with PID. These are Chlamydia trachomatis, Mycoplasma genitalium, Neisseria gonorrhoea, and bacterial vaginosis, predominantly anaerobes. (4, 7) PID can be prevent by regular screening for Chlamydia infection and appropriate treatment of it. (4) There is no single diagnosis or finding that can do specific diagnosis of PID. The diagnosis is based on the result of pelvic organ tenderness. Mild-to-moderate PID patients are treat as out patient which include tolerated antibiotic regimens against common microorganism in PID Clinically severe PID treatment done as hospitalization of the patient. (11) Sexually active women especially at the reproductive age and under the age of 25, are at the highest risk for acquiring this disease through sexually transmitted bacteria. The intrauterine devices (IUDs) are also increased risk in women who have this device in their uterus for contraception.(6)

Pic: The female anatomy (6)

Differential diagnosis:

In case of PID the clinician should concern about differential diagnosis before confirm the diagnosis.

The differential diagnosis PID of can be as follows (3):

Ectopic pregnancy

Endometritis

Salpingitis(8)

Cervicitis (8)

Ovarian cyst torsion, rapture or malignancy

UTI

Appendicitis

Clinical Diagnosis of PID:

Clinical diagnosis of PID is based on the combination of patients clinical history, physical examination and some laboratory studies.(2, 5)

The following findings are important for diagnosis of PID:

Physical or general finding: Low grade temperature, lower abdominal pain, abnormal intermenstrual bleeding or metrorrhagia, abnormal cervical discharge, postcoital pain and bleeding, urinary frequency, low back pain, nausea and vomiting.(5, 8)

Bimanual pelvic examination: Cervical and uterine motion tenderness or adnexal tenderness should present for confirming the diagnosis of PID.(10).

Laboratory finding: Leucocytosis more than 10 x 109 WBC/L , elevated C-reactive protein, elevated ESR, Gram negative intracellular diplococcic on gram stain, and positive Chlamydia test.(5)

Some definitive diagnosis: Endometrial biopsy for endometritis, transvaginal sonography or ultrasonography for pelvic or tubo-ovarian complex and the laparoscopic abnormalities associated with PID.(5)

Management

The PID management include short term and long term treatment. Short term treatment help to reduce or eliminate the sign symptom of patients. On the other hand long term treatment help to decrease the further complications.

Outpatient therapy: As aforementioned that mild-to-moderate PID patients are given treatment as out patient therapy (5)

Recommended Regimen:

ceftriaxone 250 mg im as one dose + doxycycline 100 mg orally 12 hourly for 14 days

or

Azithromycin 500 mg orally followed by 250 mg orally

daily for a total of 7 days

+

metronidazole 400 mg orally 12 hourly for 14 days

Inpatient therapy: Clinically severe PID treatment done as hospitalization of the patient. (11)

Recommended Regimen(5):

Clindamycin 900 mg intravenously every 8 hours for 14 days

PLUS

Ceftriaxone 1g intravenously every 12 hours for 14 days

Alternative Regimens(12)

Cefoxitin 2 g intravenously every 6 hours for 14 days

OR

Cefotetan 2 g intravenously every 12 hours for 14 days

PLUS

Doxycycline 100 mg orally or intravenously every 12 for 14 days

hours

OR

Ampicillin/sulbactam 3 g intravenously every 6 hours for 14 days

PLUS

Doxycycline 100 mg orally or intravenously every 12

hours for 14 days

Indications for hospitalisation

If the patients are required intravenous therapy for serious clinical condition, then patient should be hospitalised. The following patients should be hospitalised, clinically severe patients, pregnant woman with PID, surgical emergency such as appendicitis, ectopic pregnancy, failure of out patient therapy and immunodeficiency patient. (5)

Removal of IUCD

The intrauterine devices (IUDs) increased the risk of PID. So IUCD should remove if there is any clinical evidence of PID.(6)

Complication of PID:

Delay in diagnosis and treatment, or inadequate treatment increase the rate of complications.(13)

The complications are (13):

Chronic lower abdominal pain

Ectopic pregnancy

Increased risk of PID in future

Tubo-ovarian abscess.

Infertility

The points should known to patients (5):

It can be acquired other than sexually transmitted and the partners also should be tested and treated for sexually transmitted infections. The nature

of infection and complication should be known to patients and they should know the importance of follow up.

Contact tracing

Contact tracing is finding and notifying the person with the infection so they can have counselling, testing and treatment and it is important for prevention the long term health problem.(9)

Follow-up

Close follow up is necessary for prevention of complications.(5)

Prevention:

Prevention of STD is necessary to prevent PID. So early detection of any lower genital infections is necessary to prevent PID. (14) Cervical Chlamydial infection identification and treating can make smaller the incidence number of PID. (4) Finally, sex partners of women with PID should be examined and treated for gonococcal and Chlamydial infection for prevention the spread of STDs in the community.(14)