23. WOMEN WITH HIV/AIDS

23.1 Introduction

HIV disease can be devastating because of the stigma of sexual transmission and the risk of vertical transmission to children. It requires continued counseling and multidisciplinary support. Genital infections are risk factors for HIV transmission and acquisition. These include genital ulcer disease, chlamydial and gonococcal infection. In addition bacterial vaginosis appears to be very common in some women and may also constitute a risk factor. HIV infected women should be urged to use condoms to prevent transmission of infection as well as becoming re-infected with HIV or other STIs.

This section will focus on the gynaecological and obstetric aspects of HIV infection.

23.2 Menstrual disorders

Up to 40% of HIV-infected women experience menstrual disorders. Disorders experienced by women with HIV infection may be exacerbated by weight loss, anaemia, drugs and medications and psychological problems such as depression. Menstrual disorders in women with HIV infection include:

- Absence or suppression of menstruation (amenorrhea),
- Irregular periods
- Menorrhagia
- Oligomenorrhoea
- Intermenstrual bleeding
- Worsening of symptoms associated with premenstrual syndrome

In women with menstrual disorders it is important to carry out some investigations, such as, detailed history and careful clinical examination, pregnancy test, full blood count, haemoglobin and platelet levels, visual inspection of the cervix, bimanual pelvic examination and Pap smear.

Hypogonadotrophic amenorrhoea

Severe weight loss (15-20%) can be associated with hypothalamic disorder and functional hypogonadotrophic hypogonadism. This can result in menstrual disturbance or amenorrhoea similar to that seen in anorexia nervosa. History and specific investigations such as LH/FSH levels will point to the diagnosis. Improvement of body weight will usually result in resumption of menstruation.
Emotionally stressful events, which are not uncommon in HIV-infected individuals may result similarly in amenorrhoea. Some women can present with severe menopausal symptoms, in which case, HRT may be used.

Menorrhagia

In cases with thrombocytopenia, menorrhagia can present due to delayed clotting of the blood. History of other bleeding events as well as simple platelet count will help make a diagnosis. Treatment of thrombocytopenia will reduce menstrual blood flow. Other treatment options include: Tranexamic Acid 500 mg twice or three times a day for the time of the period or suppression of menstruation by Depo Provera injection, which may require higher than contraceptive doses.

Management of menstrual disorders

Current standards of care for HIV-positive women neither approve nor forbid the use of hormonal therapies or birth control for menstrual regulation. Stress management and nutrition may relieve symptoms. Dilatation and curettage (D&C) may be necessary to exclude endometrial polyps or endometritis. If D&C reveals no pathology give the patient low estrogen combined pill (30 days cycle), or if this is contraindicated give progestogen only pill. Alternatively give the patient Norethisterone 5 mg BID for 15 days.

23.3 Contraception

HIV-infected women should be advised to use reliable forms of contraception such as Norplant or injectable Medroxyprogesterone (Depo Provera) together with condoms. It should be noted that antiretroviral drugs might interact with the metabolism of synthetic oestrogens. Preferably in appropriate cases female or male sterilisation should be performed.

23.4 Pregnancy

Women presenting with amenorrhoea should be investigated for pregnancy.

Management

Offer option to terminate or keep the baby. If she wants to keep the baby, plan for a caesarean section and no breast-feeding. Prepare for provision of nevirapine 200mg to the mother during labour and nevirapine to the neonate in order to prevent the mother-to-child transmission of HIV. See also counseling under nursing care requirements.

23.5 Vertical transmission

Vertical transmission occurs in 25-40% of pregnancies if no interventions are given. A combination of antiretroviral therapy, Caesarean Section and avoidance of breastfeeding can reduce the risk to less than 3%. Antiretroviral therapy that have been used include:

- Zidovudine 100mg five times a day starting from preferably the second trimester, followed by zidovudine 2mg/kg loading dose, then 1mg/kg/hr during labour and to the baby zidovudine syrup 2mg/kg/6hrly beginning at 8-12 hours after birth for 6 weeks.
- Combination therapy
- A single dose of Nevirapine 200mg at the onset of labour followed by a single dose to the infant at 48-72 hrs of life 4mg/kg

23.6 Abnormal Pap smear

HIV positive women should have a gynaecological examination annually. This should include a visual inspection of the cervix after application of acetic acid and a Pap smear.

Women with symptomatic HIV infection and those with HIV infection and a CD4 lymphocyte count of 200/mm^3 or less should have a Pap smear performed every 6 months.

Management

Women found to have an abnormal Pap should be referred for colposcopy and biopsy. Early lesions can be treated with loop excision or cryo-therapy. Early stages of cervical cancer are treated with surgery. In late stages for example stages 2b and above, radiotherapy is indicated.

23.7 Cervical intraepithelial neoplasia (CIN)

Cervical intraepithelial neoplasia presents as dysplasia of the surface layers of the cervical cells. CIN is classified according to degrees of severity. There are 3 grades of CIN: grades I, II or III. Patients with CIN usually have no symptoms, the diagnosis being made on cytologic examination of Pap smears and on colposcopy and biopsy. It is therefore important that all women with abnormal Pap smears, i.e., smears showing any atypical cellular activity (including persistent inflammation), be referred for expert opinion.

Management

CIN-I:
No therapy needed, but patient should be monitored closely and regular Pap smears should be performed
CIN-II-III:
Any of the following modalities of treatment may be used:

- laser vaporization treatment,
- loop electric excision procedure (LEEP),
- excision biopsy,
- cryotherapy - this option may be the least desirable as it may mask future problems

23.8 Sexually transmitted infections

SEE CHAPTER ON STIs

23.8.1 Human papillomavirus (HPV) infection

HPV infection can be severe and persistent in immunosuppressed women. Chronic HPV infection can result in cervical pre-cancer or cancer, vulval

intraepithelial neoplasia and Bowen´s disease. Approximately 20% of HIV-infected women have severe cervical intraepithelial neoplasia (CIN). Because of this cervical screening should be performed annually and persistent vulval lesions should be biopsied in women with HIV infection. For women with AIDS, 6 monthly cervical screening is appropriate. Approximately 30 types of HPV can infect the genital mucosa but only 17 are carcinogenic with types 16, 33 and 18 being the commonest in our population.

Treatment of HPV infection may not be effective until the immune anti-HPV response controls viral replication. This can be achieved if antiretroviral treatment is given.

23.8.2 Herpes simplex virus (HSV) infection

HSV is the commonest cause of genital ulcers in immunosuppressed individuals. A herpetic genital ulcer that persists for more than one month is indicative of immunosuppression. Herpetic ulcers are often multiple, deep, recurrent and painful. HSV has been implicated in postpartum endometritis in HIV-infected women. Diagnosis is made on clinical findings. Treatment is effective in reducing the severity of the symptoms and controlling the extent of lesions and to prevent the recurrence of lesions. Acyclovir 200mg PO given five times a day for five days is an effective treatment. In persons with persistent and protracted ulcers it is appropriate to prescribe a long-term treatment with acyclovir 400mg PO BID.

23.8.3 Genital candidiasis

Vaginal candidiasis can be severe and recurrent in women with HIV infection. Patients present with itching and soreness of the vulva and vagina, and complain of a white discharge. The pH of the vagina is usually normal and microscopy or culture of the discharge confirms diagnosis. Topical treatment is preferable. A variety of pessaries and creams containing imidazole or nystatin are available. In severe cases systemic treatment with a single dose 150mg of Fluconazole is effective if the pathogen is *Candida albicans* only. In recurrent infection once or twice monthly treatments can be offered.

23.8.4 Bacterial Vaginosis

About 50% of HIV-infected women will present with vaginal fishy smelling discharge due to this condition. The organisms commonly associated with bacterial vaginosis are anaerobic bacteria such as *Gardnella vaginalis, Bacteroides spp, Mobiluncus* and *Mycoplasma hominis.* Diagnosis is made clinically using Amsel criteria: vaginal pH>4.5, release of fishy smell on addition of 10% potassium hydroxide, characteristic discharge on examination and presence of "clue cells" on microscopy. The treatment is Metronidazole 400mg orally twice a day for five days or 2g as a single oral dose.

23.9 Prevention of Malaria during Pregnancy

HIV-infected women are more likely to develop malaria during pregnancy if they are at risk of this infection. Therefore they should be advised to use malaria prophylaxis.

23.10 Nursing care requirements

The nursing care requirements for women with HIV infection are summarised in Table 23.1.

Table 23.1 Nursing care requirements for women with HIV infection

Condition	Nursing Intervention
Pain and discomfort related to genital lesions, PID, dysmenorrhoea, dyspareunia	Administer prescribed analgesia. Advise on fowler's position for PID. Use hot or cold compresses for dysmenorrhoea, vaginal jellies to relive dyspareunia
Altered nutrition related to disease condition as evidenced by loss of weight	Give information on well balanced diet. Increase caloric intake to provide energy. Encourage diet with increased fat and carbohydrate in diet and also use fruit and vegetables, and natural unrefined foods.
Risk for infection related to reduced immunity	Encourage long term antibiotics like Cotrimoxazole to prevent *Pneumocystis* pneumonia (PCP). Hand washing Proper disposal of sanitary pads and good perineal care
Knowledge deficit	Client education regarding diagnosis, signs and symptoms, and

related to disease process	management and complications, and referring to tangible psychosocial support. Self-care strategies including use of condoms
Anxiety and distress related to stigma	Find out the source of anxiety. Counsel according to the client's needs
Vaginal discharge due to STI, bleeding,	Perineal care, relevant antibacterial creams, use of antiperspirant deodorants
Pruritis related to vaginal discharge, herpes, or unhygienic practices	General hygiene, antimicrobial vaginal pessaries, perineal care
Fluid volume deficit related to vomiting, diarrhoea or excessive sweating	Encourage to drink at least 8 glasses of water per day. If she cannot tolerate this amount of water, other drinks or fluids may be taken according to preference.
Fluid volume excess related to generalised oedema	Administer prescribed diuretics. Encourage exercise especially of the lower limbs. Elevate limbs when sitting down
Altered self concept	Counseling
Altered role concept as mother and wife	Counseling
Self-care deficit	Counseling, assistance with activities of daily living