Many women are unaware of the prevalence of CAD. In a 2006 survey, only 55% of women identified cardiovascular disease as the leading cause of death among women. Studies have shown that physicians also underestimate the magnitude of cardiovascular disease in women and that they tend to place women in lower risk categories compared with men despite equivalent risk profiles. Much of the evidence used to guide the treatment of coronary disease in women is based on trials predominantly enrolling men. Treatments and interventions found to benefit men might not provide the same benefit to women.

Osteoporosis

More than 10 million Americans have osteoporosis; 8 million are women. It is a disease that disproportionately affects women, particularly as they age. The lifetime risk of fracture of a patient with osteoporosis is as high as 40%. Most osteoporosis trials have involved mostly white women, limiting generalizability to all races and ethnicities. Racial minorities are diagnosed and treated less often.

Human Immunodeficiency Virus Infection

Since the beginning of the HIV epidemic in the 1980s, the percentage of women affected has grown considerably, with women now accounting for 25% of those living with HIV in the United States, compared with 7% when the epidemic began. African American women and Latinas are disproportionately affected. In 2010, the rate of new infections among black women was 20 times that of white women and almost 5 times that of Hispanic women (38.1 versus 1.9 and 8.0 per 100,000, respectively). Mortality rates are higher among racial minorities than among white women.

Many factors affect racial disparities. Communities in which there is a higher HIV prevalence (many African American and Latino communities) pose a greater risk of acquisition of HIV with every sexual encounter. Other factors include economic barriers, lack of insurance, stigma, and higher levels of STIs, which increase the likelihood of acquiring and transmitting HIV.

There are unique barriers to prevention of HIV in women. Women may be unaware of the partner's risk factors for HIV, such as injection drug use, multiple partners, or unprotected sex with men. Unprotected vaginal sex is a much higher risk for women than for men, and unprotected anal sex is riskier than unprotected vaginal sex. Women who have experienced sexual abuse are more likely to engage in high-risk sexual behaviors, such as exchanging sex for drugs, having multiple partners, or having sex with a partner who is physically abusive.

Although many of the clinical manifestations of HIV infection and acquired immunodeficiency syndrome (HIV/AIDS) in women are similar to those in men, significant gender-based differences exist. Women may not prioritize their own care. Women are also disproportionately affected by poverty, IPV, unstable housing, substance abuse, lack of transportation, lack of insurance, and the necessity of finding child care, all of which pose barriers to care.

Biologic differences also exist. Although women typically have lower viral loads than men despite the same level of CD4 counts, the rates of disease progression are similar. Rates of opportunistic infections are similar for men and women. Women may have gynecologic complaints as their initial manifestation of HIV/AIDS, including *Candida* vaginitis, pelvic inflammatory disease, abnormal Papanicolaou smear results, and STIs such as herpes simplex virus, chancroid, and syphilis.

Risk for cervical abnormalities and cervical cancer is related to the degree of immunosuppression, age, and co-infection with high-risk HPV genotypes (16, 18, 52, and 58). Women with preserved CD4 counts and negative HPV test results are at relatively low risk for cervical cytologic abnormalities. Women with HIV infection are more likely to progress more rapidly to cervical cancer. The CDC recommends two cervical cytology screens at 6-month intervals in the first year after an HIV diagnosis. Those with normal results and deemed low risk (i.e., no prior abnormal Pap smear, HPV infection, or AIDS) may have the Pap smear performed annually, with more frequent examinations performed for those deemed high risk. Vulvar and perianal intraepithelial neoplasias are more common in women with HIV than HIV-seronegative women, and the lesions should be evaluated.

Antiretroviral therapy and follow-up monitoring are similar for men and women with HIV/AIDS. Women should be counseled to also use a barrier contraceptive (i.e., male or female condom), because this has proven efficacy in reducing the transmission of HIV and other STIs, although it is less effective for pregnancy prevention.

For a deeper discussion on this topic, please see Section XIX, "Women's Health," in Goldman-Cecil Medicine, *25th Edition.*

SUGGESTED READINGS

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