be considered in patients presenting with recurrent airway infections and an anterior mediastinal mass and/or any of the paraneoplastic syndromes associated with thymoma, such as myasthenia gravis.

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References
8. Kainulainen L, Varpula M, Liippo K, Svedberg A, Kainulainen S, Markkula K. Delayed-type hypersensitivity (DTH) re-
sponse to Mycobacterium avium complex (MAC) disease developed in a small proportion of patients during the first few weeks of therapy and that this development was associated with the restoration of a delayed-type hypersensitivity (DTH) response to mycobacterial antigens. We argued that this reflected restoration of an immune response against subclinical MAC infection [3]. Disease presentation was atypical; in particular, the infection was usually localized to tissues rather

Influence of the Normal Menstrual Cycle on Vaginal Microflora

Sir—We read with interest the article by Eschenbach et al. [1] in Clinical Infectious Diseases. The authors presented a detailed description of the vaginal microflora at 3 points during the menstrual cycle, as detected by means of culture methodologies. Women both with and without bacterial vaginosis (BV) were studied. Among the women without BV, it was noted that there was a significant increase in the recovery rate of high concentrations of Lactobacilli species over the course of the menstrual cycle, with only 70% of subjects having high levels during menses. They also noted a significant shift from high to low levels of non-Lactobacillus flora from the time of menstruation to the later parts of the cycle.

We have also been interested in changes in the vaginal microflora, and we have described daily changes in the flora during the course of the menstrual cycle among 51 women who had no evidence of BV or other lower genital tract infections [2]. Using the vaginal Gram stain method described by Nugent et al [3], we examined vaginal smears that were self-obtained from these women daily, and we found significant, transient changes in the vaginal flora. The most significant point of change was during the time of menses. Only 11 (22%) of the 51 women maintained a lactobacillus–predominant flora throughout the menstrual cycle. Other factors that were associated with shifts in the flora included a greater number of sexual partners and more frequent unprotected vaginal intercourse.

Therefore, our data concur with those of Eschenbach et al. regarding the instability of vaginal flora at the time of menses in the majority of women. Behaviors associated with instability in our study suggest that sexual activity may also be associated with this pattern.

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Immune Restoration Disease in HIV-Infected Patients after Antiretroviral Therapy

Sir—We were interested to read the paper on “immunorestitution disease” by Cheng et al. [1], since we, too, have argued for several years that infectious and/or inflammatory disease in HIV-infected patients who are responding to antiretroviral therapy (ART) is a manifestation of immune restoration. When zidovudine monotherapy was introduced into clinical practice, our group observed that Mycobacterium avium complex (MAC) disease developed in a small proportion of patients during the first few weeks of therapy and that this development was associated with the restoration of a delayed-type hypersensitivity (DTH) response to mycobacterial antigens [2]. We argued that this reflected restoration of an immune response against subclinical MAC infection [3]. Disease presentation was atypical; in particular, the infection was usually localized to tissues rather

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