PENICILLIUM NOTATUM IN VAGINAL AND CERVICAL SMEARS

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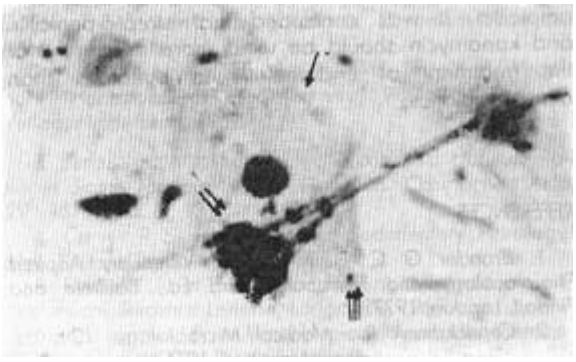
Parasites, fungi and bacteria are frequently observed in vaginal and cervical smears. The most frequently encountered fungus is Candida albicans but very rarely molds, like Penicillium notatum, can also be found.

Two cases of P. notatum were found among 47.266 vaginal and cervical smears examined during the period 1978-1989 which has only rarely been observed in cervical and vaginal smears (2). Although saprophytic, Penicillium species can be a cause of secondary infections in the presence of other microorganisms (5,8). They are also encountered in patients with severe debilitating illnesses such as Leukemia (4,6,7). Microscopically Penicillium develops with a vegetative hypha and the sterigma and terminal conidia chains give the fungus-like appearance (1,3).

All our smears were stained with the Papanicolaou method. In two smears, we noted P. notatum and many free spores among the epithelial cells (Figure 1). Our two patients were 27 and 35 years old and had vaginal discharge and back pain.

Figure 1: Penicillium notatum. Vaginal smear. (Papanicolaou stain x 1150). One arrow: Stratified squamous epithelium cell. Two arrows: penicillum notatum. Three arrows: Free spores.



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Colino *et al.* have reported P. notatum in one vaginal smear, and Aspergillus is another (2). Zablen *et al.* have found Aspergillus in endometrial washing fluid (9). Vaginal acidity is an important mechanism in depending the genital organs against various infections. Changes in vaginal acidity during various phases of a woman's life lead to cervical infections such as non-specific and specific colpitis. Rarely the causative microorganisms may be fungi (2).

As we observed numerous P. notatum in our smears we believed that this mold found a change to proliferate as an opportunistic fungus when the vaginal acidity had changed.

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