Editorial

Androscopy of Unproven Benefit

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The technological advances coming in the 21st century no doubt will astound us. Perhaps they will involve computer-controlled tractor devices that pull the colonoscope through the bowel, eliminating alpha loops forever, or maybe a scanning device that will accurately count the number of human papillomavirus (HPV) particles in the body, subtype them, and print out a risk profile for the development of HPV comorbidities. Whatever form the new technologies take, larger and larger volumes of clinical data will be available. Family medicine must be prepared to evaluate these data and make decisions about new technologies.

An area of practice that deserves careful evaluation and further data collection is the diagnosis and treatment of HPV infections. In the 1980s, HPV was commonly implicated in abnormal Papanicolaou smears, with the reports showing koilocytosis or various degrees of dysplasia. Increasing numbers of women were evaluated by colposcopy and coloscopically directed biopsies. Initial therapies included cryosurgery or laser therapy or both. Intravaginal and vulvar application of 5-fluorouracil were added, and later abandoned by many, as physicians attempted to eradicate the HPV from the female genital tract. Many family physicians added these diagnostic and treatment modalities to their own practices in response to the increase in abnormal Papanicolaou smears and as colposcopic training became available.

Focus on the male role in transmission of HPV disease led to the initial recommendation for androscopy (examination of the penis under magnification), based upon the belief that HPV could be eliminated.[1–3] Genetic probes have provided evidence, however, that residual virus remains even after "successful" treatment, and that the viral subtypes may change with recurrent infections.[4] Although treatment may eliminate *visible* lesions, eradicating the papillomavirus with local treatment may be impossible.[5]

In this issue, Epperson provides some of the data needed for more rational decisions about the use of androscopy and the treatment of individual patients. The study indicates that 79% of men who are compliant with therapy (consisting primarily of cryosurgery) will be free of clinically significant disease at follow-up. Twenty percent of the men in the study, however, were lost to follow-up, and the number of biopsies indicating no HPV-related disease shows the difficulty of being sure of a diagnosis simply by observing the lesion under the colposcope. Epperson's recommendations reflect one school of thought about this complex problem.

Questions about the effectiveness of androscopy remain and further studies are needed. For example, does clinically evident disease need to be present before infection can be passed on to sexual contacts? Experience with the herpesvirus, which can be transmitted even when the patient is asymptomatic, challenges the assumption that the lack of lesions greater than 2 mm in diameter or occurring in clusters identifies a "safer" partner.[6] It will take several years of careful observation to provide answers for couples who have been cleared of "clinical disease."

Does reducing the "virus load" decrease the chances of experiencing neoplastic changes? The logical answer seems to be yes. However, even if the answer is yes, has research shown what is that critical viral dose? Epperson's description of clinically significant disease may be a reasonable place to start. The challenge for family medicine researchers is to agree on a definition and gather data from many centers in a long-term study to test the assumption that lesions less than 2 mm in diameter and not occurring in clusters are clinically insignificant.

Is androscopy a legitimate method of patient education? The procedure itself certainly should emphasize to a couple that "he" has something to do with the abnormal Papanicolaou smear report that "she" received from her doctor. More questions need to be asked. Does the patient's new knowledge affect behavior? Is there a

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trend toward monogamy, or at least toward the consistent use of condoms in nonmonogamous encounters? Are there less expensive, but equally or more effective, means of getting the message across about male responsibility in the occurrence of carcinoma of the cervix? What about carcinoma of the penis and HPV infection?[7] To date, no link with HPV has been demonstrated, and the low incidence will make it difficult to obtain meaningful epidemiologic data.

Answers to these questions will help to answer the ultimate question asked by everyone who cares for women with abnormal Papanicolaou smears. Realizing that the median transit time for progression of CIN I to CIN III is about 58 months, and that for progression of CIN III to invasive cancer is about 10 years,[8] at what point in the natural history of carcinoma of the cervix is it appropriate to intervene? Some have answered this question by advocating the treatment of any condylomatous atypia with an ablative procedure, along with attempts to eradicate clinically significant disease in the woman and her partner or partners. Others contend that the ablative treatment should be reserved for women who exhibit carcinoma in situ, and that attempts to treat associated HPV disease in either partner is not indicated. Although the truth is likely somewhere between these two extremes, more studies like the one by Epperson should be undertaken. Perhaps then we will know which diseases need treatment: HPV infection; clinically evident HPV infection; cervical dysplasia; intraepithelial dysplasia of the penis; a lack of a monogamous sexuality in society; or a combination of the above?

Until we have answers, one reasonable approach may be to encourage the limited use of androscopy by physicians who will systematically record their results and participate in finding answers. Recently, it has been shown that treatment of condyloma in men does not influence the success rate for treatment of cervical dysplasia in female partners.[9,10] Thus, it may be reasonable to discourage the general use of androscopy by family physicians until additional studies can expand and refine the kind of investigation Epperson reports. To encourage general use may result in confusion as physicians attempt to gather, by androscopy, information about the health of their patients and then make treatment decisions based on an incomplete understanding of the disease that they are trying to treat.

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