LETTERS TO THE EDITOR

The Journal welcomes Letters to the Editor; if found suitable, they will be published as space allows. Letters should be typed double-spaced, should not exceed 400 words, and are subject to abridgment and other editorial changes in accordance with journal style.

AN IMPROVED TECHNIQUE FOR PAPANICOLAOU SMEAR SAMPLING IN POSTMENOPAUSAL WOMEN

To the Editor:

We have recently reported a study on Papanicolaou smear adequacy, comparing the yield of endocervical cells or squamous metaplasia cells with different techniques for four fertility states.[1] In brief, we learned that the best yield of endocervical cells and squamous metaplasia cells was obtained using a Milex spatula after swabbing the cervix free of excess mucus. However, even with this technique, the yield of endocervical cells and squamous metaplasia cells was only 43 percent in postmenopausal women. We have now added two additional techniques of obtaining Papanicolaou smears, with the goal of improving the yield of endocervical cells and squamous metaplasia cells in postmenopausal women.

Twelve hundred twenty consecutive Papanicolaou smear specimens were obtained from nonhysterectomized women from August 1, 1983, to June 30, 1984, among four practice groups in the Family Medicine Unit. Two of the four groups obtained Papanicolaou smears after swabbing the cervix free of visible mucus by sampling the endocervix first with a Milex spatula, then by a saline-soaked cotton swab. The other two practice groups also swabbed the cervix, but reversed the order of sampling, first using the saline-soaked cotton swab, then the Milex spatula.

The criteria for selecting women and their fertility states as well as cytopathologic interpretations have been described in the previous study.[1] The yield of endocervical cells and squamous metaplasia cells by the two additional techniques was compared first with the other, for each fertility state and second, for all fertility states collectively. The difference between the two techniques was not significant for the entire set of smears or for those from nonpregnant premenopausal, pregnant, or postpartum women. However, the yield of endocervical cells and squamous metaplasia cells in smears from postmenopausal women was significantly higher (63 percent to 49 percent) in the groups that used the Milex spatula prior to the saline-tipped applicator.

This latest study demonstrates that the yield of endocervical cells and squamous metaplasia cells from postmenopausal women can be improved by sampling the endocervix first with a Milex spatula followed by a saline-soaked cotton swab. A possible explanation for this finding is that the serrated edges of the Milex spatula loosen adherent endocervical cells and squamous metaplasia cells, which are then collected on the saline-soaked cotton swab. It is noteworthy that this 63 percent yield of endocervical cells and squamous metaplasia cells in smears from postmenopausal women is greater than that from other published reports[2] as well as that reported in our previous study.[1] The order of sampling did not affect the yield of endocervical cells and squamous metaplasia cells in the other fertility states studied; however, the yield

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of endocervical cells and squamous metaplasia cells was acceptable in either order.

As a consequence of this and our previous study, the technique described in this report is now used routinely in this Family Medicine Unit.

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1. Hamblin JE, Brock CD, Litchfield L, Dias J: Papanicolaou smear adequacy: Effect of different techniques in specific fertility states. J Fam Pract 1985; 20:257-260
2. Allingham JD, King A: Patient characteristics and endocervical cell recovery on Papanicolau smears. J Fam Pract 1985; 20:185-190

PROTEINURIA IN ADOLESCENTS

To the Editor:

Concerning the article by Peggs et al (*Peggs JF, Reinhardt RW, O'Brien JM: Proteinuria in adolescent sports physical examinations. J Fam Pract 1986; 22:80-81),* the common finding of proteinuria should not be all that surprising. However, the conclusion that such a common occurrence does not warrant the use of routine urine screening is a dangerous one. A point to be raised is that the preseason examination done may represent the only such physical examination done in these adolescents since early childhood. Certainly proteinuria is not always a sign of more overt conditions such as renal disease or adolescent hypertension, but the use of dipstick urinalysis followed by repeated urinalyses on those proved to be spilling protein is not a high price to pay for the possible uncovering of such pathologic disorders.

I would bring up two possible reasons why the incidence of proteinuria may have been high: (1) the possibility of exercise-induced proteinuria, and (2) testing equipment aging or storage problems.

It would have been interesting to have learned what the results were on the follow-up testing, which was obviously done on the 62 percent of students who exhibited proteinuria on the first screening. Furthermore, it would have been very helpful to have learned whether any of the proteineric youngsters eventually ended up having either sustained hypertension or renal pathology.

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The preceding letter was referred to Dr. Peggs, who responds as follows:

I appreciate Dr. McKeag's comments and believe that they only further point out the lack of justification for doing such routine urine testing on a mass screening basis. Certainly all physicians in primary care recognize that preparticipation sports physical examinations may be one of the few medical evaluations obtained by their patients in the adolescent years. However, the high occurrence of such false negatives argues against the screening value of the routine urine testing at the time of the sports physical. Both the American Academy of Family Physicians and the American Academy of Pediatrics have recommended that urine testing no longer be included in the routine sports examination.

As to the possible reasons for the incidence of proteinuria being so high in our reported population, I agree with the possibility of exercise-induced proteinuria. The likelihood that any of us could

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examine a large number of junior and senior high school student athletes who have abstained from exercise prior to the examination is very low. The exercise, as well as the warm summer temperatures, may be factors that explain the results, but also serve as factors that are very difficult to control. As regards the testing equipment at the time of the studies, the quality control checks were performed on separate batches of reagent strips in view of the findings from the first-year studies. Similar fresh supplies of equipment from separate batches were utilized during the second year's examination as well. The staff performing the tests were also cross-checked for their reliability.

In reference to those 214 students who were examined in both years reported, 61 of them (28 percent) had urine test results that were positive for protein on both occasions. Unfortunately our follow-up information is incomplete, since a number of the students are cared for by family physicians in surrounding communities. To our knowledge thus far, none of the students has yet been diagnosed as suffering either renal disease or significant hypertension.

The cost of an initial urine screening test is minimal; the price paid in repeat evaluations and anxiety on the part of the patient and the family is more difficult to calculate. Our desire to maximize the opportunity to evaluate adolescents must be tempered by our concern for cost effectiveness. I feel there is insufficient evidence to continue routine screening of urines in this age group.

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OCCUPATIONAL MEDICINE

To the Editor:

Dr. Schusterman's excellent discussion of work-aggravated illness in three patients (*Schusterman D: Problem-solving techniques in occupational medicine. J Fam Pract 1985; 21:195-199*) is consistent with *The Journal*'s policy of keeping physicians ever alert to occupational hazards.

In case 3 (headaches, vertigo, and gastrointestinal distress) the symptoms were not characteristic of either nitrophen (herbicide) poisoning or organophosphate poisoning.[1] Fortunately a job-site visit by Shusterman provided the clue that led him to the correct diagnosis of metal fume fever.

This confirms our experience in Charleston that often the patient cannot give the physician the important facts in the office that the physician needs to make the diagnosis. As with a well-planned home visit to a family, a job-site visit can help patient and physician work out the chain of events together. This can be done in the urban or the rural setting for industrial or agricultural exposures.

The routine office-based occupational history has a very low yield unless supported by onsite investigation.[2] One wonders why the routine work history is overemphasized when, in fact, it is so limited and unproductive. Perhaps it can be justified as a minimal first step for the keen clinician who knows that he may have to make further observations at the workshop or farm site.

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BOWEL PREPARATION FOR FLEXIBLE SIGMOIDOSCOPY

To the Editor:

In the October issue of *The Journal of Family Practice,* Weiss and Watkins[1] discussed their experience in bowel preparation for 35-cm flexible proctosigmoidoscopy, concluding that one enema is adequate preparation for a bowel (vs a two-enema technique). Although I do not disagree with their conclusions, I was distressed by their seemingly high incidence of poor preparation in both groups (12.9 percent in the one-enema group; 20.0 percent in the two-enema group). Perhaps they, and others, should review their technique of bowel preparation instead of the quantity required.

In their paper they stated, "all patients received verbal and written instructions on administration of enemas. . . ."[1] But they did not elucidate upon a time interval for holding the enema. According to the package instructions of the Fleet enema, the patient is to "maintain position until urge to evacuate is strong (usually 2 to 5 minutes)."[2]

My training and practice involve use of a 60-cm sigmoidoscope. I limit the patient's bowel preparation to a single Fleet enema one hour prior to the procedure, requesting patients to hold it in the colon for 10 to 15 minutes. Certainly not all patients can hold a Fleet enema 15 minutes; patient interview prior to the examination has revealed that one third of patients can hold the enema for 5 to 10 minutes, one third for up to 10 minutes, and the remainder for 15 minutes. Although my present study population is small (51 subjects), failure to complete an adequate 60-cm examination (secondary to fecal obstruction) has been encountered in only six cases (11.8 percent). Of these cases, one required a total of four enemas to clear stool palpable within the rectal vault (and then lead to a clear procedure), two patients demonstrated spastic colon during the examination (which could also be expected to occur during the enema process, minimizing its efficacy), one had significant sigmoid diverticular disease and a tortuous sigmoid colon, one simply had a poor preparation result, and the last patient was requested to hold the enema only to urgency as he was bleeding from radiation proctitis. Excluding the four-enema "clean-out" examination, I was still able to visualize an average of 40-cm (range 35 to 40 cm) and in only one examination was unable to visualize all of the sigmoid colon. Therefore, if I were to relate my experience to a 35-cm examination, my failure rate would be only 2.0 percent.

I do not wish to take issue with Dr. Weiss' protocol for bowel preparation prior to sigmoidoscopy, but to offer data from a slightly different technique that might yield a higher successful outcome to an important diagnostic procedure. His efforts are timely and appreciated as they mark the need to respect the comfort of the patient and at the same time to facilitate the value of this procedure.

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