

during the next 10 seconds whether the drop rises, remains stationary, or falls will indicate whether its specific gravity is greater or less than the test solution. Certain precautions should be observed, such as avoiding convection currents in the test solution, but these details have appeared previously in these columns.⁴

Since 1960 the National Blood Transfusion Service has raised its standards. While maintaining the minimum standard of 85% haemoglobin for female donors, males are now accepted or rejected by screening against a solution of specific gravity 1055, corresponding to a haemoglobin level of 90% (13.2 g.). Raising the standard to this level for female donors also is at present under consideration. It is customary for samples taken from donors failing the screening test to undergo further examination in a laboratory and for the general practitioner to be informed if the presence of anaemia is confirmed.

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- ² Addendum, 1951 to the *British Pharmacopoeia*, 1948, p. 73. Pharmaceutical Press, London.
- ³ Phillips, R. A., et al., *Bull. U.S. Army Med. Dept.*, No. 71, 1943, 66.
- ⁴ *Brit. med. J.*, 1954, 1, 771.

NOTES AND COMMENTS

Cytodiagnosis in Female Genital Cancer.—Drs. J. FRAMPTON and E. WACHTEL (Cytology Department, Institute of Obstetrics and Gynaecology, Hammersmith Hospital, London W.12) write: Although in agreement with many of the points stated in the reply to the question on cytodiagnosis in female genital cancer ("Any Questions?" February 10, p. 419) we feel that some comments are pertinent. We do not agree that in the hands of an experienced cytologist routine cytological studies result in a high percentage of false positive reports for squamous cancers of the cervix. In fact the "false positive" report rate of an experienced cytologist is less than 0.3%.¹ There is surely no doubt to-day that many cases of pre-invasive carcinoma of the uterine cervix will proceed to invasive carcinoma if left untreated. Hence the "potential threat of invasive cancer" is, in fact, a very real one. Several workers have followed patients with pre-invasive lesions of the cervix for many years^{2,3,4} and have found that more than 10% are destined to develop an invasive lesion if not treated. It is equally well known that some early invasive lesions may be symptomless and so not give rise to any suspicion on clinical examination. Indeed it may be true to say in the earliest stage, when a high percentage cure rate can be expected, the disease is entirely symptomless. At a mass screening experiment in Memphis, Tennessee,⁵ 393 pre-invasive cancers and 373 invasive cancers were found in a total of 108,000 women examined cytologically; 90% of the pre-invasive cancers and nearly 30% of the invasive cancers had not been diagnosed or suspected on clinical examination. Although it is a practical impossibility to envisage wholesale cytological screening of large communities in this country in the near future, the recent short article, "Significance of In Situ Carcinoma of the Uterine Cervix," in this journal⁶ leaves little doubt as to the advantages that would accrue in saving virtually healthy and often young women from invasive carcinoma of the cervix.

Dr. W. A. ELLIOTT (Edinburgh 9) writes: Your expert makes several assertions with which many will disagree in decrying the cervical smear as a useful routine screening test for carcinoma of the cervix. As a mere G.P. I must protest against his statement that "the technique requires considerable experience and skill in . . . the taking . . . of the smears." The survey undertaken by the South-east Scotland Faculty of the College of G.P.s.⁷ showed 15 unsuspecting carcinomas in 1,000 women, and very few smears had to be repeated because they were technically unsatisfactory.

OUR EXPERT replies: If these correspondents re-examine the answer on which they comment they will not find anything at variance with their views. They may also appreciate that the reply was conditioned by the precise wording of the question. Being fortunate in having the services of an experienced cytologist and histologist, the last 15,000 non-pregnant women attending my clinic have routinely had cervical smears examined. So I have no need to be convinced that the percentage of false positive reports can be extremely low and that cytodiagnosis can be very valuable to patient and gynaecologist. But this experience, like that of the cytology department at Hammersmith Hospital, of the specially selected group of general practitioners

quoted by Dr. Elliott, and of contributors to the literature, does not reflect what is happening in areas and countries where cervixes are examined perfunctorily, where smears are taken blindly, and where laboratory facilities for this specialized type of work are indifferent. Under such circumstances many women are being exposed to surgery not only on account of false positive reports on cervical smears but on incorrect assessments of histological changes in cervixes subject to biopsy. Even the reliable diagnosis of carcinoma in situ on microscopic sections requires special skill. The value of a good cytodagnostic service for a community is not in doubt. The danger lies in the use of routine cervical smears and prophylactic surgery without knowledge of their place and limitations, and without the all-essential backing of the appropriate good laboratory facilities.

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- ¹ Anderson, A. F., *J. Obstet. Gynaec. Brit. Emp.*, 1956, 63, 439.
- ² Kotumeter, M. L., *Carcinoma of the Female Genitalia*, 1953. Williams and Wilkins, Baltimore.
- ³ Anderson, A. F., Grant, M. P. S., McBryde, R. M., and Cockburn, M. K., *J. Obstet. Gynaec. Brit. Emp.*, 1953, 60, 345.
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- ⁵ Erickson, C. C., et al., *J. Amer. med. Ass.*, 1956, 162, 167.
- ⁶ Boyes, D. A., Fidler, M. K., and Lock, D. R., *Brit. med. J.*, 1962, 1, 203.
- ⁷ *Lancet*, 1958, 2, 895.

Post-menopausal Vaginal Atrophy.—Mr. E. SCHLEYER-SAUNDERS (London W.1.) writes: May I add my personal experience to this very important condition of post-menopausal vaginal atrophy ("Any Questions?" February 12, p. 349)? In the course of a special study of the menopause¹ I saw 10 cases of dyspareunia caused by post-menopausal atrophy. They were all women between 50 and 60 years of age who either rarely had intercourse or were childless widows who remarried. They had all been treated unsuccessfully with pills, ointments, and dilators. Four of them underwent psychological treatment for several years.

There is a tendency to classify this condition as a neurotic one, whereas in fact the cause is anatomical. Lack of oestrogen leads to atrophy of the mucosa and shrinking of the surrounding tissues. The atrophic thinning of the protective epithelial covering causes hypersensitiveness of the nerve endings and an attempt at sexual intercourse produces the spasm of the muscles surrounding the vaginal opening. Dryness of the vaginal mucosa still further increases the dyspareunia.

In treating these cases I have found that the best results are achieved by a small plastic operation and an implant of oestradiol and testosterone in a relation of 1:5. The operation consists of a small incision of the perineum dividing the levator sling but deep enough to permit normal perineal contraction but not interfere with coitus. The cut edges of the flap of the vaginal wall are fixed to the skin edges vertically so that the resulting scar is transverse. One of the advantages of the implant is that the patient is not continuously reminded of her condition as she would be while taking tablets. The combined use of oestrogen and androgen enables the dosage of either to be kept well below the level at which side-effects might be produced.

REFERENCE

- ¹ Schleyer-Saunders, E., *Med. Press*, 1960, 244, 337.

Correction.—In the letter by Professor W. W. Weisbach entitled "Amputation Through the Knee" (February 24, p. 567) the concentration of the mercuric chloride solution used for impregnating the sheets should have been 0.05%, not 10.05% as printed.

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