An important point in this case would appear to be that regeneration almost indistinguishable from normal tissue had occurred in less than six months from the date of the primary operation in a vas, which had been divided and resected with histological proof of the fact. Obviously, therefore, precautions to prevent this are extremely important. The exact length of vas removed at the original operation is not known but it is believed to have been about 1 cm. In my experience, a very reliable method of preventing such an event has been to separate the planes of tissue in which the two ends of the vas lie as well as to take the normal precautions of coagulation and ligaturing the two ends of the vas. I have found that a purse string suture around one end of the vas allows it to be invaginated into a deeper plane of the areolar tissues than the other end. I have had no failures following this method of performing the operation.—I am, etc.,

GEORGE T. WATTS.

General Hospital,
Birmingham.

SIR,—I am sure Dr. L. N. Jackson (14 November, p. 436) is right to point out that male sterilization need have no untoward psychological effects, but I doubt whether he is justified in the criticisms he makes of Mrs. Helen Wolfers's carefully written paper (31 October, p. 297).

When he states that the Simon Population Trust "has heard from many thousand men who have undergone vasectomy and not one of these, nor their wives, has reported any adverse long-term psychological or physical effects attributable to the operation" he is merely showing up the defects of relying on the answers to a postal questionnaire as an adequate means of follow-up.

Mrs. Wolfers made it clear that in five of the seven couples interviewed by her there was a history of psychological disturbance prior to the operation as well. Surely the point is that vasectomy may be unsuitable for couples with psychosexual problems.—I am, etc.,

MICHAEL HUMPHREY.

Department of Psychiatry,
St. George's Hospital Medical School,
London S.W.17.

Fibrinolytic Activity and Oral Contraception

SIR,—Some time ago we had an opportunity of studying the blood fibrinolytic activity in ten women before and approximately three months after they had started taking chlormadinone acetate (0.5 mg. daily) for oral contraception. In all these subjects the blood fibrinolytic activity as estimated by the euglobulin lysis time (E.L.T.) method using an E.L.T. recorder¹ showed an increase at the end of three months (Fig. 1). Since the E.L.T. method is a specific method for estimating the plasminogen activator content in the blood the results indicate that these levels in the blood were increased by the drug. On the other hand, when the overall fibrinolytic inhibitor levels were estimated by the method of McNicol *et al.*² it was found that there was a fall in these levels at the end of three months while on chlormadinone (Fig. 2).

These results are in contrast to our previous findings,^{3,4} when a decrease was found in the blood fibrinolytic activity (estimated by E.L.T. method) in women taking chlormadinone compared with normal women. No significant difference in fibrinolytic inhibitor content was observed when normal women were compared with those taking chlormadinone. This discrepancy is surprising, and it is suggested that when comparisons of fibrinolytic activity are made it would be advisable to do so "within patient basis." Comparing subject to subject may not show the true picture as it is well established that the fibrinolytic activity

varies from person to person.—We are, etc.,

I. SUDHAKARAN MENON.
MARY PEBERDY.

Royal Victoria Infirmary and
University of Newcastle,
Newcastle upon Tyne.

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Brucellosis in Veterinary Surgeons

SIR,—I have only recently received the *B.M.J.* in which Dr. W. R. Thrower (11 April, p. 69) makes the following statement concerning brucellosis: "A recent survey (to be published) was made among veterinary surgeons in Northern Ireland, a region where cattle keeping standards are high. Out of 123 subjects examined, 100 had significant agglutination titres in their sera and 50 showed clinical evidence of infection."

I can only presume that Dr. Thrower is referring to the survey carried out by me in 1967 with the bacteriological assistance of Dr. W. J. McCaughey, as I know of no subsequent clinical and serological survey of this type in Northern Ireland.

I should like, therefore, to make several comments on Dr. Thrower's statement. Firstly, the figures quoted are not accurate and refer only to the anti-human globulin (Coombs) (A.H.G.) test. Such a high percentage of positive tests was found only in veterinary surgeons working in private practice. Another group of veterinary surgeons, employed by the Ministry of Agriculture in Northern Ireland, had less evidence of exposure to brucella antigen, which they may even have acquired in previous private practice.^{1,2} Secondly, to say that 100 had significant agglutination titres in their sera is misleading. One hundred and seven out of 118 veterinary surgeons in private practice had an A.H.G. titre of 1/20 or greater against *Br. abortus* antigen,¹ but there is no evidence that I am aware of to suggest that this means anything more than previous exposure to infection. Previous authors have not specified what they consider to be a significant level of A.H.G. titre,^{3,4} but a complement-fixation titre of 1/16 or greater has been said to represent activity of infec-

tion.³ I was able to show with this group of veterinary surgeons that it was very difficult to relate serological titres obtained by either the A.H.G. test or the C.F. test with symptomatology. There was some suggestion that an A.H.G. titre of 1/160 or greater, or a C.F. titre of 1/128 or greater, was more likely to be obtained in those with recent symptoms of brucellosis, but 33 veterinary surgeons out of a total of 110 had A.H.G. titres of 1/160 and no symptoms and 15 had C.F. titres of 1/128 or greater and no symptoms.² I suggest that the meaning and, therefore, the value of these tests in clinical practice is still far from clear.

I would particularly take issue with the statement that 50 of the veterinary surgeons showed clinical evidence of infection. In fact, only 17 out of 121 veterinary surgeons in private practice had symptoms which were consistent with a diagnosis of brucellosis and serological evidence of exposure to infection.⁵ A total of 48 veterinary surgeons admitted to symptoms, past or present, which were in the brucellar range. Of these, 31 claimed to have had brucellosis previously, but a maximum of 19 of these diagnoses appeared to have been justified. Of the 25 veterinary surgeons who complained of symptoms within the previous one year, six were probably suffering from some other disease and two had negative serology, thus excluding the diagnosis.³

I do not wish to suggest that brucellosis is not a serious health hazard to veterinary surgeons, but rather that it tends to be over-estimated. When one considers the vagueness and the multiplicity of the symptoms of brucellosis and the large number of veterinary surgeons who have evidence in