fluid infusion is premature rupture of the membranes, vigorous labour, cyanosis, and anoxic convulsions. In the case I reported the uterus was not hypertonic, the contractions were, in fact, weak, and the uterus relaxed normally between contractions. She was not at any time given "pitocin."

I agree that the time element is against the diagnosis of penicillin anaphylaxis, but the absence of an overactive uterus is surely against that of amniotic fluid infusion. Histology of the lungs would, of course, have been conclusive in the latter case, and I regret that I am unable to give further details of the necropsy. The post-mortem report was loaned to me by the coroner and contained no histological data.—I am, etc.,

Palwal, Punjab, India.

P. E. CAMPBELL.

REFERENCE

¹ *Amer. J. Obstet. Gynec.*, 1953, 66, 465.

Natural Childbirth

SIR,—I was very interested to read Dr. Constance Beynon's (*Journal*, February 19, p. 475) and Grantly Dick Read's (*Journal*, March 5, p. 604) letters, and feel that as I have very recently gone through a series of classes during pregnancy to prepare me for "natural childbirth" I can give a true and tried viewpoint of this subject, which at least one of the above-mentioned cannot.

Under the eager supervision and with the enthusiastic encouragement of my husband (a G.P.), I most diligently went to weekly relaxation classes, where I and a band of other pregnant women were given exercises and instructive talks on the processes taking place within us by a most competent instructress. I carried these out to the best of my ability daily in my home. I read a great deal of the available literature, and so enthused did I become in this subject that I preached to the unconverted and rounded up many more mothers-to-be for the classes. I felt I had got it down to a fine art, and I awaited childbirth in a completely happy, relaxed, and elated frame of mind. I admitted myself to hospital in this state and contentedly awaited events.

Let me state categorically that a great deal of what I was taught to do was physically impossible in labour, and much of what was possible one hadn't the inclination to do at that time. It is one thing to do these "exercises" on the floor of the local welfare centre, and quite another to try to do them in labour. Furthermore, I found that so becalmed and relaxed and optimistic of the easiness of childbirth had I become that I was totally unprepared for the really serious and hard business involved. I am afraid, therefore, that after being Dr. Grantly Dick Read's most ardent and loudest fan I can now say that Dr. Beynon summarizes my thoughts. I have changed to her way of thinking merely by attempting to put into practice the theories of Dr. Grantly Dick Read. The point is: is it worth having one's morale high in pregnancy, only to be battered in labour, and very low post-natally? I would add that I have checked my reactions with quite a few other recent mothers, all former advocates of Dr. Grantly Dick Read's teachings, and in each case my own experience was confirmed.—I am, etc.,

Harold Wood, Essex.

CONSTANCE LYNN.

Salicylates in Anticoagulant Therapy

SIR,—In considering the treatment of a patient with coronary thrombosis in general practice, I have often wondered if there is not some safer form of anticoagulant therapy which could be instituted in the home without the constant vigil of the clinical pathologist.

In this respect I would like to make a suggestion the efficiency of which perhaps may not approach that possible in hospital, yet, weighed against the risk of transfer to hospital, may be at least a step in the right direction. It is well known that salicylates lower the level of plasma prothrombin and so reduce coagulation time. So far as

I can see there are very few contraindications to the administration of salicylates to patients who must be nursed at home. Perhaps one disadvantage would be the fact that the drug administered as sodium salicylate would increase the plasma volume by virtue of the sodium ion. This difficulty may not be completely overcome by administering the drug in the form of the acetyl derivative, since much of this would be converted into sodium salicylate before absorption. Anyhow, this disadvantage would be important only in the case of the larger infarcts associated with cardiac failure, and in all other cases it is reasonable to suppose that the anticoagulant effect would far outweigh the effect of the increased circulatory volume.

I would be extremely interested to hear comments on this therapy.—I am, etc.,

Wembley.

M. H. SINGER.

Primary Aldosteronism

SIR,—I wish to congratulate Dr. J. W. Conn (*Journal*, December 11, 1954, p. 1415) on his fine clinical achievement in reporting to the Central Society for Clinical Research in Chicago (October 29, 1954) the paper in which he characterized a new syndrome in endocrinology: primary aldosteronism. Since I have been referred to in Dr. Conn's letter I would like to make some additional remarks.

First of all, an increased production of aldosterone (at that time called electrocortin) in the patient suffering from a so-called "potassium-losing nephritis" was first reported by Dr. C. L. Cope and myself (patient Mrs. A) in the *Journal* (June 5, 1954, p. 1290). At the time that paper was sent for publication I—and I want to emphasize that this is my personal opinion, as I do not want to commit Dr. Cope in what I am going to say—was not aware of the possible significance of the fact. At the beginning of 1954 I moved to New Zealand and I proceeded with my experiments on the excretion of aldosterone after surgical trauma. It is a very well known fact that all relatively major operations are followed by a loss of potassium. As a result of my experiments I have been able to report in a preliminary communication to the Otago Medical School Research Society (October 21, 1954)¹ that the loss of potassium and retention of sodium which follows an operation are associated with an increased excretion of electrolyte-regulating corticoid, statistically highly significant when compared with the pre-operative level, and that, what is still more interesting, the increased level of this corticoid returns to its pre-operative level when the urinary electrolyte values in the operated patient recede to the pattern before operation (unpublished data).

These findings seem to prove that a hyperproduction of aldosterone is a constant feature after operation, when electrolyte alterations are present. Thus at the time I obtained these results I fully realized the significance of the increased excretion of aldosterone in the patient Mrs. A. In the middle of August, 1954, I wrote a personal letter to Dr. M. D. Milne communicating to him the result of my experiments in the surgical field, telling him my conviction that the main trouble in Mrs. A's case was hyperproduction of aldosterone, and suggesting to him to re-study the patient according to this line. What Dr. Milne thought of this suggestion I cannot ascertain, but as far as I know the study was not carried out, as in the otherwise most interesting paper by Miss B. M. Evans and Dr. M. D. Milne (*Journal*, November 6, 1954, p. 1067) "no further comment was made upon this finding," to quote Dr. Conn's own words.

Another case reported as of unknown cause, which I undoubtedly believe must be considered as primary aldosteronism, has been mentioned by Dr. M. Taubenhaus, of Chicago.² To my knowledge the first detailed clinical description of a case of this peculiar condition is due to Kjerulf-Jensen, Krarup, and Warming-Larsen.³ Although they stated that the excretion of corticoids was rather low in their patient, aldosterone was not known at that time (1951), and, further, this steroid has such a surprisingly strong activity in very minute amounts that, even when

excreted in sufficient quantities to produce biological disturbances, its presence does not influence the total amount of urinary corticoids.

I am not writing in order to claim any priority at all in the description of the syndrome of primary aldosteronism, but, first, to afford some data—hidden from the limelight—which later on, when the importance and frequency of this fascinating syndrome are fully appreciated, may help to record the successive steps which have led to the establishment of primary aldosteronism as a clinical entity; and, secondly, to make it clear that at least someone amongst the clinical and research workers involved in the case reported by Miss Evans and Dr. Milne became fully aware of the significance of the increased excretion of aldosterone in that case as early as the middle of 1954. Ethical considerations deprived me of making any comment before Dr. Milne published his case. He has produced an impressive collection of biochemical data in the paper with Miss Evans, but I feel that they have missed the point, indeed the main point. I am very glad that the syndrome has now been fully segregated by Dr. Conn, who has done an excellent piece of work.—I am, etc.,

Dunedin, New Zealand.

J. G. LLAURADO.

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- ¹ *Proc. Univ. Otago med. Sch.*, 1954, 32, 20.
- ² *Metabolism*, 1954, 3, 274.
- ³ *Lancet*, 1951, 1, 372.

Mental Symptoms Caused by Carbmomal

SIR,—It might be of interest to note that carbromal, in addition to producing purpuric eruptions as described by Dr. Peter Borrie (*Journal*, March 12, p. 645), may also cause acute and chronic mental symptoms of a non-specific kind.

A number of such cases have been described by G. Magnussen.¹ Reviewing cases of acute poisoning of demonstrable origin, admitted to Copenhagen hospital over a period of one year, he found that carbromal was the third commonest agent responsible.

In a patient seen recently carbromal medication was no doubt a contributing factor to the picture of depressive illness with which the patient presented. She had been taking "persomnia" tablets (which contain carbromal) most days for six to seven months, usually not more than six to eight tablets daily, at one time "a couple of bottles full" within a few days. This produced an acute toxic episode lasting for about two to three days characterized by feeling extremely sleepy, relaxed, muddled, "as if drunk"; her speech was slurred. During the last few months she had become increasingly quarrelsome, irritable, undecided, listless, and feeling depressed—features which Magnussen described in cases of chronic poisoning.

On admission the bromide level of the blood was elevated to 125 mg.%. This finding, as well as the raised bromide level in the C.S.F., is a constant feature of chronic carbromal poisoning and may be also of diagnostic help in cases where skin eruption is the presenting feature. Four weeks after admission her serum bromide had returned to normal and her mental state greatly improved.

It is felt that because carbromal drugs are freely available in this country (as Dr. Borrie has pointed out) its potential dangers should be more widely known.—I am, etc.,

London, S.E.26.

G. STROH.

REFERENCE

- ¹ Magnussen, G., *Ugeskr. Læg.*, 1947, 109, 359.

Diet and Coronary Artery Disease

SIR,—I should like to comment on your report (*Journal*, March 12, p. 662) on the meeting at the Royal Society of Medicine. Professor H. W. Fullerton emphasized the importance of increased fat intake in the production of hypercholesterolaemia and its possible influence on atherogenesis, a concept to which I referred in the past in some detail.^{1,2} During the last few years further research into the cholesterol problem has shown that cholesterol is transported by different fractions of the plasma proteins and is kept in solutions by phospholipids. The percentage of total cholesterol

carried by *alpha*-lipoproteins was found to be higher in women under the menopausal age than in men, but it was approximately the same in women and men above 45. In survivors from coronary infarction, however, the *alpha*-lipoprotein fraction diminished markedly and the *beta*-lipoproteins increased correspondingly. Oestrogen administration in patients who survived myocardial infarction increased the *alpha*-lipoprotein fraction and decreased the *beta*-lipoproteins³ and at the same time diminished the total blood cholesterol level.⁴ Withdrawal of oestrogens was quickly followed by re-establishment of the previous conditions.

These blood lipid changes might give some explanation for the well-known male preponderance in coronary disease. There is in fact much to indicate that Paul D. White's "coronary individual" is characterized by physical and mental masculinity, and that the condition of "oestrogenicity" is associated with relative immunity to coronary disease.⁵ The corresponding lipoprotein pattern for the latter would be an increase of the *alpha*-lipoproteins; and this was found indeed in castrates.⁶ Further, in extensive necropsy studies (1) an apparent diminution of coronary atherosclerosis was evident in males treated with oestrogens on account of prostate cancer; (2) a significant increase in coronary atherosclerosis was demonstrated in oophorectomized (hypo-oestrogenic) women; and (3) less atherosclerosis was found in hyper-oestrogenic women suffering from breast cancer than in normal controls.⁷

All these seem to indicate that sex hormones may influence atherogenesis by a mechanism which includes the distribution of lipoproteins in the blood, in addition to other aetiological factors like increased fat intake and hypercholesterolaemia. Whether the disturbance of fat metabolism is a fundamental defect in atheroma formation or only secondary to other causes, further histochemical research as outlined by Professor T. Crawford at the meeting may clarify.—I am, etc.,

London, W.1.

Z. A. LEITNER.

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- ² ——— *Med. Wld.*, 1954, 81, 249.
- ³ Barr, D. P., et al., *Trans. Amer. Ass. Phys.*, 1952, 65, 102.
- ⁴ Oliver, M. F., and Boyd, G. S., *Brit. Heart J.*, 1953, 15, 387.
- ⁵ Gertler, M. M., and White, P. D., *Coronary Heart Disease in Young Adults*, 1954, p. 36-79. Harvard University Press, Cambridge, Mass.
- ⁶ Furman, R. H., et al., *Amer. J. Med.*, 1954, 16, 594.
- ⁷ Rivin, A. U., and Dimitroff, S. P., *Circulation*, 1954, 9, 533.

The Aftermath of Hysterectomy

SIR,—I recently took part in a television programme as a doctor—I am retired—in which the operation of hysterectomy was discussed. The discussion arose after a letter from a viewer in which she said that a surgeon had advised her to have the operation and she had gone into hospital afraid and worried because she really did not understand what was going to be done. She also stated that many of the women in her ward were in the same position.

Arising out of the discussion were further letters. Here is an extract from one: "Three years ago I had my uterus and ovaries removed, and was told on leaving hospital that it would make no difference to my married life. This was very wrong and I have been very worried for almost three years. Recently I had occasion to go to hospital again and on mentioning the matter I was immediately given a course of hormone treatment. This has certainly made all the difference, and I cannot believe the change it has made to my married life. . . . I wonder why in one of the biggest London hospitals this was not mentioned to me after the operation?" Another letter says that the writer had a subtotal hysterectomy and one ovary removed for a large fibroid at the age of 39 years. The letter goes on to say: "Tragically for me, my husband changed completely from a loving and devoted husband to a morose, bad-tempered and, in fact, cruel man almost immediately upon my return from hospital. He moved into a separate room and has stayed there ever since, yet before the operation we were inseparable and devoted to each other."

These letters give one a great deal of food for thought, at least if one is a woman. In the first place, are we doing our duty as doctors if we allow people to be operated on not knowing in the least what the operation involves? If any doctor or surgeon