ANY QUESTIONS?

We publish below a selection of questions and answers of general interest.

Fluoridation and Phenistix Test

Q.—*It was stated*[1] *that the presence of fluoride ions masks the Phenistix reaction. What concentration of fluoride ions would be needed to do this?*

A.—The concentration of fluoride ions required to mask the Phenistix test varies with the concentration of the phenylpyruvic acid. At the lowest levels of phenylpyruvic acid likely to be found in the urine in phenylketonuria a fluoride concentration of 1 part per thousand interferes with the test in that a grey rather than a green colour is produced. However, the grey is so definite that such a result probably would not be dismissed without further investigation. The ferric chloride test still gives a clear positive under these conditions. Complete masking of the Phenistix reaction would require a concentration of sodium fluoride of at least one part per hundred.

A concentration of 1 part per million is usual for artificial fluoridation of water supplies. Failure to detect cases of phenylketonuria by Phenistix therefore is unlikely to occur as a result of fluoridation of water supplies.

REFERENCE

1 *Brit. med. J.*, 1964, **2**, 1057.

Inheritance of Phocomelia

Q.—*A woman has a mild degree of phocomelia with webbing of the thumbs. Her only child is severely affected with bilateral absence of the radius and shortened limbs. What are the chances of abnormality in any further children?*

A.—It is difficult to give a precise answer to this question. If the abnormality in mother and child appears on the radiographs to be developmentally similar it is probable that both are heterozygous for a mutant gene.[1,2] In that case the risk of recurrence could be as high as 1 in 2. If the abnormality in mother and child appears to be developmentally dissimilar the risk of recurrence would be much smaller.

REFERENCES

1 Birch-Jensen, A., *Congenital Deformities of the Upper Extremities*, 1949. Andelsbogtrykkeriet, Odense.
2 Grebe, H., *Missbildungen der Gliedmassen, in Humangenetik, Band II*, 1964, edited by P. E. Becker. Georg Thieme, Suttgart.

Digitalis and Glaucoma

Q.—*What is the effect on glaucoma of the sudden withdrawal of digitalis? Has the glycoside been used in the treatment of acute or chronic glaucoma?*

A.—The cardiac glycosides (ouabain, for example) inhibit aqueous formation in the rabbit if they are given by intravitreous injection,[1] and the local application of digitoxin has been reported to lower intraocular pressure in a human volunteer.[2] Oral administration in patients with glaucoma also produces a small fall in intraocular pressure,[3–5] but on the present evidence it has little value in routine treatment. Since the fall in pressure is small any rise in pressure after withdrawing the drug is unlikely to be serious.

REFERENCES

1 Smith, J. L., and Mickatavage, R. C., *Amer. J. Ophthal.*, 1963, **56**, 889.
2 Becker, B., *Invest. Ophthal.*, 1963, **2**, 325.
3 Simon, K. A., Bonting, S. L., and Hawkins, N. M., *Exp. Eye Res.*, 1962, **1**, 253.
4 Peczon, J. D., *Arch. Ophthal.*, 1964, **71**, 500.
5 Awasthi, P., and Saxena, R. B., *Orient. Arch. Ophthal.*, 1964, **2**, 151.

Intra-articular Corticosteroids in Arthritis

Q.—*A man with rheumatoid arthritis of 19 years' standing, affecting mainly the right knee and left hip, had marked relief for three weeks after a corticosteroid injection into the knee. Is it advisable to repeat this treatment, and, if so, how often, and should it be tried in the hip? What is the best preparation for intra-articular injection and in what dose?*

A.—In knee-joints affected by rheumatoid arthritis repeated intra-articular injections of corticosteroids should not be used to try to keep the patient walking, because the long-term result of this programme is usually a disorganized joint.

An inflamed knee is often flexed and crippled as a result of an inhibited and wasted quadriceps. Since a weak quadriceps cannot guard the knee against sprains inflammation is perpetuated in a vicious circle. In this situation one or two intra-articular injections of corticosteroid can be very valuable in suppressing inflammation and so allowing intensive quadriceps exercises to be carried out, but there should be *no weight-bearing* on the knee during this programme. Flexion contracture will often resolve rapidly, but if the joint is unstable it should be protected by splints. Muscular control in the hip joint is not so important, and intra-articular corticosteroids are indicated only in exceptional circumstances.

Hydrocortisone suspension is a satisfactory and well-tried preparation, and the appropriate dose for the knee-joint is 50 mg. per injection.

Immunization of Typhoid Contacts

Q.—*Is it advisable to immunize all the members of a family with T.A.B. vaccine as a protective measure when one member of the family contracts typhoid?*

A.—The first injection of T.A.B. vaccine produces no immunity at all: it develops only after the second injection, given usually a month later. Since the incubation period of typhoid fever is 10 to 14 days, active immunization can obviously offer no protection to the members of a family after one member has contracted typhoid. T.A.B. vaccine may cause fairly sharp reactions, and a reaction to vaccination would only add to the troubles of a patient already incubating the disease.

A more hopeful method of giving protection to other members of the family might be to treat them with chloramphenicol, or possibly better with ampicillin, which is bactericidal, in the hope of cutting short any infection. But very careful bacteriological control would be necessary to avoid missing any subclinical infections and a subsequent carrier state. Moreover, it should be realized that the chemoprophylaxis of infection is not so simple a matter as one might think.

REFERENCE

1 Christie, A. B., in *The British Encyclopaedia of Medical Practice*, edited by Lord Cohen, 1962. Butterworth, London.

Notes and Comments

Newer Oral Contraceptives.—Dr. G. BARRY CARRUTHERS (Medical Director, Family Centre Ltd., London W.1) writes: In the answer to this question ("Any Questions?" 6 March, p. 640) your expert implied that trials of the sequential method of oral contraception in this country showed a higher failure rate than with the combined progestogen/oestrogen method of oral contraception. It was not made clear that several sequential formulations have been devised, but the only one marketed in this country is Feminor Sequential, which is based on mestranol 0.1 mg. daily for 15 days (pink tablets) followed by mestranol 0.075 mg. with norethynodrel 5 mg. for the following five days (white tablets).

The clinical trials with this preparation have been conducted over two years at the Family Centre and have shown a failure rate which is at least as favourable as most of the claims for the progestogen/oestrogen combinations (in press). Any escape ovulation that may occur appears to coincide with the phase of endometrial denuding, and is therefore not viable.

Mention was also not made of the particular advantages of the sequential approach. These include reliability of cycle control and reduction of side-effects and of the adverse pelvic features—namely, cervical erosion and myometrial hyperplasia. The advantages of lower progestogen dosage to which your expert refers become even more marked when this progestogen is eliminated altogether during the first 15 days of administration and its use restricted to preparing the endometrium for regular withdrawal bleeding.

OUR EXPERT replies: It is interesting to learn that Feminor Sequential formulation appears to be as efficient as the combined. If so it lends weight to one of the current theories about why sequential therapy should generally be less efficient—namely, that the mode of action of inhibition of ovulation by oestrogen alone is different from that with oestrogen plus progesterone, and that larger doses of oestrogen are therefore required. I would agree that the sequential method compares very well with the combined oral contraceptives with regard to cycle control and low incidence of side-effects, though I am not aware that cervical erosion and myometrial hyperplasia are a problem with combined oral contraceptives.

Correction.—The comment by Dr. D. Murphy and Dr. H. F. West ("Notes and Comments," 3 April, p. 914) on the question of whether prednisolone taken by a nursing mother entered her milk in significant quantities should have read as follows: "From studies in this unit [Rheumatism Research Unit, Nether Edge Hospital, Sheffield 11] of tritiated cortisol in breast milk and saliva and of tritiated prednisolone in saliva it is clear that a baby would receive less than 1/1,000th [not 1/100th as printed] of the dose of prednisolone given to its mother—a quantity of no significance."