Conclusions.

1. One application of radium to the uterine cavity is sufficient to complete the menopause. Hence operative procedures are unnecessary purely for this purpose.

2. The method is not free from distressing or even dangerous results.

3. Just as in oophorectomy and panhysterectomy so also in all methods which suddenly induce the menopause ovarian extract should be given as a routine proceeding.

4. Many illnesses at the time of the menopause may be due, either wholly or in part, to ovarian insufficiency, and in all such illnesses ovarian extract should be given a trial.

5. Asthma may be due to a deficiency in one of the internal secretions, and this may possibly account for the success of adrenaline in certain cases, of pituitrin in others, and of ovarian extract in this case.

6. In asthma two factors may be at fault and both must be treated to obtain a satisfactory result.

Note by SIR HUMPHRY ROLLESTON.

Dr. MacBean Ross's account of this remarkable case is so clear that little remains, except, perhaps, unfruitful speculation as to the relation between the administration of the ovamammoid compound and the cessation of the grave asthmatic state.

That the beneficial effect of this preparation was solely due to suggestion seems improbable, because other forms of treatment just as likely to produce such an influence had proved futile. As the ova-mammoid preparation was given by the mouth and not hypodermically it can hardly be argued that it acted, like the intramuscular or intravenous injection of peptone (Auld), as a non-specific desensitizer. Lastly, it is difficult in the present state of our knowledge to say that the sudden production of ovarian insufficiency caused, by means of the resulting upset of the endocrine balance, a metabolic asthma; it is just conceivable that from sudden withdrawal of an ovarian internal secretion the thyroid secretion might become relatively excessive and so render the central nervous system susceptible to stimulation by the "foreign" protein provided by the antral suppuration, with the result that asthmatic manifestations followed.

Such speculation, though attractive to the speculator, is not based on the proper basis of experiment, but it renders all the more desirable investigation of cases of asthma occurring after the artificial production of the menopause.

A NOTE ON THE TREATMENT OF SQUINT.

BY

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UNDER the term "squint" I include all non-paralytic errors of muscle balance of the eye. There has been a large amount of interesting work done on the anatomy of the extrinsic muscles of the eye, and on operative procedures to correct errors of muscle balance. I recently attended discussions on these issues in the United States of America. The only comment I made during these discussions was that we would do well to shake ourselves free from all that had been done and revert to first principles.

From the mechanical point of view it seems to me that nature has inserted the extrinsic muscles of the eye in such a position that each shall obtain the same maximum leverage and that this leverage shall be constant whatever the position of the eye. That is to say, the recti muscles are inserted well in front of the equator, the equator or any point in front of it being equally the position of maximum mechanical advantage. Hence the retarding of any tendon would be mechanically unsound. From the physiological point of view it is well known that the force with which a muscle contracts increases with the degree to which it is stretched within limits before contraction. Tendon tucking or advancement stretches one of the muscles of the eye and introduces a factor which cannot be gauged.

From the surgical point of view any cutting operation leaves scar tissue which is subsequently liable to contract, and none is more likely to do so than tendon tucking. The latter almost invariably means muscle tucking, hence it can be seen that no operative procedure can pretend to anything like scientific accuracy. In fact, in almost all cases the final result is practically cosmetic.

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I wish to draw attention to the case of an Indian banker who came to me at Amritsar in 1917. He had had an ordinary seventh-nerve paralysis, from which he had recovered a few months previously. The muscle balance of his mouth had gone wrong and was a disfigurement—permanent, as is usual in such cases. I gave him an electro-magnetic apparatus and showed him how to use it. After a couple of months he came back to me with the mouth pulled to the opposite side—that is to say, towards the nerve originally paralysed. The last I saw of him was two years afterwards. The shortening he had produced had remained permanent.

The muscle balance of the eye is exactly analogous to the muscle balance of the mouth. If we can alter the Indian banker's mouth permanently by a course of electrical stimulation of the muscle on one side, we can similarly alter the muscle balance of the eye. There is no means of getting away from this issue.

While on a holiday with a friend recently in a village in Nova Scotia, a girl of 10 years of age was brought to me; she had $7\frac{1}{2}$ degrees of external squint. I had no dark room nor apparatus with me. A local doctor kindly lent me an electro-magnetic apparatus. I spent a few sittings with the child, allowing her to play with the instrument so as to gain her confidence. I used an ordinary sewing needle as one pole, placing the other pole on the nape of the neck. With the eye cocaineized I pushed the needle through the conjunctiva not more than one-eighth of an inch towards the affected muscle. She could not stand the hum of the instrument, so my friend did the make and break of the current with his hand. I gave her about fifty shocks of such strength as the child would put up with over the internal rectus of one eye in the morning, and over the internal rectus of the other eye in the evening. At the end of five days—ten sittings—the squint, as examined in open daylight, was reduced to 2 degrees.

I had then of necessity to leave this very interesting case, and the best I could do was to order her a pair of 1 D prisms. At this stage I secured a piece of red glass, and found that with it she had $7\frac{1}{2}$ D, and without it had 2 D, showing that she was exercising $5\frac{1}{2}$ fusion power.

It was noticeable in this child that the little shock produced caused the child to vomit occasionally after the sitting, and this tendency naturally limited the length of the sitting and the strength of the current used. This is not surprising, as in children or adults any shock associated with surgical interference with the eye often causes a vomiting of this kind. The right technique for this procedure has yet to be settled.

I would suggest that the patient should be put under gas for the minute or two required at each sitting, the eye being also cocaineized, a meridional slit made in the conjunctiva about one-eighth of an inch over the muscle, the pole insulated with sealing-wax to near the point, and the muscle submitted to a fairly strong current in this way twice a week.

If this is done I have no doubt the operator will get what shortening he requires with very few sittings; that he will be able to adjust the length of any extrinsic muscle of the eye to the physiological length; and that he will run no risk of mutilation. To emphasize the main issue of the procedure I advocate: If one can rapidly by means of a series of electric shocks shorten permanently and to any degree required the muscles which balance the mouth, by analogy you can similarly shorten permanently any of the extrinsic muscles which balance the eye. The procedure which I advocate would do away with all operations for muscle balance and with the use of prisms for this purpose.

PULSATILLA IN DYSMENORRHOEA.

BY

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THIRTY-ONE years ago a patient came to me suffering, amongst other things, from dysmenorrhoea. It was very severe, causing nausea and prostration, and the pain sometimes reduced her to helplessness. She was then over 30, and had suffered in this way since her third period, at the beginning of which she had "taken cold." I prescribed, by a fortunate inspiration, pulsatilla, a remedy which I had previously been led to regard as useless. The result was such that the patient afterwards told me that the fee she paid me was the best investment she had ever made in her life. Since then I must have used pulsatilla in hundreds of cases. In many it has been entirely successful. In most it has given great relief. I believe those in which it has completely failed have been few.

The cases in which I prescribe pulsatilla give a history of this kind: They have pain for the first day or two of each