

and fluctuant to palpation. The swelling does not disappear after catheterisation. (2) Inspection of the vulva will reveal occlusion of the lower end of the vagina, which may bulge on straining in the case of imperforate hymen or retrohymenal membrane. There may be associated imperforate anus. (3) Puncture of the occluding membrane in the lower part of the vagina will tap the characteristic fluid. Its withdrawal will cause disappearance of the swelling. (4) Radiography after introduction of a radio-opaque medium into the fluid in the vagina will reveal the distended condition of the vagina with or without associated distension of the uterine cavity.

Prognosis

In early cases the prognosis is good. In late cases, particularly in the presence of complications, the prognosis is very much worse. Pressure symptoms may be particularly serious in infants and may cause death. Hydrocolpos may cause serious damage to the female genital tract.

Differential Diagnosis

The condition should be differentiated from hæmato-colpos and from other neonatal and prepubertal swellings in the hypogastric region—e.g., urachal cyst and distended

bladder. Catheterisation will eliminate a distended bladder. Inspection of the vulva is extremely important, along with other measures, such as rectal examination and puncture of the occluding membrane in the lower part of the vagina.

Treatment

This is simple where the occlusion is due to an imperforate hymen or retrohymenal membrane. In these cases a cruciate incision or excision of the hymen and drainage of the fluid are enough. Where the occlusion is due to atresia of the lower vaginal canal some sort of plastic operation may have to be undertaken at the appropriate age.

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Preliminary Communication

EFFECT OF COMBINED INJECTIONS OF DEOXYCORTONE ACETATE AND ASCORBIC ACID ON RHEUMATOID ARTHRITIS

MORE and more attention has been given during recent years to the therapeutic effect of hormones from the hypophysis and adrenal cortex, especially in rheumatoid arthritis. Two Swedish workers¹ showed that the implantation of calf hypophysis in a case of severe rheumatoid arthritis caused the disease to take a more favourable course. The important American research on certain hormones from the hypophysis (A.C.T.H.)^{2,5} and adrenal cortex (Compound E)^{3,4,5} and their effect on rheumatoid arthritis has been a great incitement to research in this field.

The following is a preliminary report of an investigation on the effect of combined injections of desoxycorticosterone acetate and ascorbic acid on rheumatoid arthritis.

The series comprises 9 patients (6 women and 3 men) with both mild and severe rheumatic disease of the joints of two weeks' to fifteen years' standing.

At the suggestion of one of us (E. L.) the patients were treated with an intramuscular injection of 5 mg. Deoxycortone (desoxycorticosterone) acetate in 1 ml. of oleum arachis, immediately followed by an intravenous injection of 1 g. ascorbic acid (10 ml. of 10% solution). Five minutes after the injections the articular pain began to diminish and the articular mobility began to increase. Fifteen to thirty minutes later, the pain had practically disappeared and the mobility improved as much as the anatomical changes in the joints and muscular atrophy would allow. All the patients reacted in a similar way. In some cases the improvement was astounding. One of the patients was completely crippled

by pain and contractures after rheumatoid arthritis for fifteen years: after one combined injection, she sat up with ease and moved her arms and legs about freely; all her pain had gone. It was noted that the skin became warmer and redder in the articular regions after the injection. Some patients became greatly exhilarated after the injections—more than one would expect from the mere relief of pain.

The effect lasted from two to six hours, occasionally more than twenty-four hours. It seems as though it lasts longer with each further injection. In more acute cases one or two injections have been enough to banish the pain for two or three weeks (the present observation time).

We have not yet worked out the most suitable dosage. Doses exceeding 5 mg. of desoxycorticosterone acetate and/or 1 g. of ascorbic acid do not enhance the effect. On the other hand, half these amounts seems to be equally effective. The ascorbic acid can also be given intramuscularly, but no effect has been observed after oral administration. As a rule we have waited two to five minutes between the injections. If we waited two hours we got no effect. In one case relief has been obtained for four days (at the time of writing) by the intramuscular implantation of one tablet of 100 mg. of desoxycorticosterone acetate followed by injections of 0.5 g. of ascorbic acid every sixth to eighth hour.

As far as we can determine, the pain-relieving effect is confined to the joints and adjacent regions. In cases of sciatica, myeloma, and wound and muscular pains no alleviation of the pains was observed.

As yet we have not seen any toxic side-effects after the injections. No changes in the blood-pressure have been noted, nor any mentionable effect on sodium chloride or potassium in the blood. In some cases a drop in the sedimentation-rate of the red blood cells was observed.

Further work is being done along these lines so as to ascertain how far the effects described are obtainable in different types of arthritis or other conditions, and whether the observations can lead to a therapy of these diseases.

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