The significance of the presence of the gonadotropic substance is discussed in relation to the luteal activity of the placenta.

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TREATMENT OF CHANCROID WITH SULPHANILAMIDE

BY

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Chancroid is an ulcerative condition of the genitals due to infection with Ducrey's bacillus, and is observed more frequently in males than in females. The genital ulceration is often followed by the formation of large inguinal buboes. A provisional diagnosis may be made on clinical grounds, since the ulcers have a characteristic appearance, but in addition there is a specific test—Reenstierna's test. In this test 0.2 c.cm. of Dmelcos testing vaccine (1 c.cm. = 450 million organisms) is injected intracutaneously in the forearm. After forty-eight hours there is a marked local reaction around the injection, with a papule and often a pustule or a necrotic area. It is necessary to exclude syphilis in every case, and this is done by dark-ground examination of the exudate from the ulcers on three successive occasions at intervals of twenty-four hours. During this period saline soaks are applied to the ulcers. The blood is examined at regular intervals by the Wassermann and Kahn tests.

The usual treatment is by securing free drainage of the ulcers, applications of weak antiseptics such as eusol, etc., and intravenous injections of a vaccine of Ducrey's bacillus—"Dmelcos vaccine." Injections are given on alternate days or as determined by the general reaction of the patient. The initial dose is 0.5 c.cm. (120 million organisms), and each successive dose is increased by 0.5 c.cm. The general reaction is usually severe: a temperature of 103° F. frequently follows in about eight hours and returns to normal in twelve hours. This treatment is not suitable for ambulatory patients, and patients are usually in hospital for at least two weeks.

Sulphanilamide Treatment

Following a suggestion of Dr. McGregor Robertson of Glasgow, made at a meeting of the Scottish Division of the Medical Society for the Study of Venereal Diseases, we have treated ten cases of chancroid with sulphanilamide by mouth. Four cases had relapsed after treatment with Dmelcos vaccine.

Case 1.—A man was admitted to the Royal Infirmary, Edinburgh, with genital ulceration and an inguinal bubo: Reenstierna's test was positive. There was no evidence of

syphilis. Treatment with five injections of Dmelcos vaccine was followed by the rapid disappearance of the sores and the bubo, and the patient left the ward. Ten days later he reported to the out-patient department with a large bubo. Treatment with sulphanilamide by mouth was given, and the bubo healed in six days. This patient has been under observation for thirty days since treatment was stopped; his condition remains normal.

Case 10.—A woman had previously been treated for syphilis and gonorrhoea, treatment being discontinued before clinical or bacteriological cure. She was referred back to the clinic by the prison medical officer on account of genital ulceration of ten days' and left inguinal bubo of five days' duration. The introitus vaginae was surrounded by shallow ulcers, ragged and with undermined edges. The bubo was about three inches in diameter. It was slightly tender, but no softening was detected. The serum from the ulcers did not contain *Sp. pallida*, and Reenstierna's test was positive. The blood Wassermann and Kahn tests were also positive. The patient was given sulphanilamide by mouth—6 grammes a day for three days, then 4 grammes a day for four days. Healing was rapid and complete. On the sixth day the ulcers had healed and the bubo was almost completely absorbed. On the tenth day the patient's condition was restored to normal.

Table showing Summary of Cases

Case No.	Ref. No.	Sex and Age	Genital Ulcer	Bubo	Total Dose of Sulphanil. grammes	No. of Days' Treatment Required	Previous Treatment
1	C9877	M, 34	+	+2	57	11	5 injections Dmelcos iv
2	C9928	M, 55	+	+2	53	10	5 injections Dmelcos iv
3	D48	M, 29	+	+2	46	8	4 injections Dmelcos iv
4	C9788	M, 42	+	+1	36	10	5 injections Dmelcos iv
5	B	M, 31	+	+2	68	5	Nil
6	D164	M, 23	+	+1	40	7	Nil
7	D3800	M, 27	+	—	52	8	—
8	D3489	M, 21	+	+2	76	10	—
9	D3497	M, 18	+	—	36	11	Syphilis
10	D216	F, 25	+	+1	34	7	Syphilis & Gonorrhoea

Average dose of sulphanilamide, 50 grammes; average number of days' treatment required, 9.

System of Treatment and Observation at Present Adopted

First, second, and third days: Dark-ground examination of serum from ulcers; saline dressings applied to ulcers; Reenstierna's test carried out; Wassermann and Kahn tests of blood.

	Male	Female
4th and 5th Days: Sulphanilamide	8 grammes a day	6 grammes a day
6th, 7th, 8th, and 9th Days: Sulphanilamide	6 grammes a day	4 grammes a day

The use of sulphanilamide is not devoid of risk. Case 5 was that of a man, aged 31, whose co-operation in treatment was not perfect, as he had eaten three eggs and had taken two aspirin tablets during five days' treatment. After 34 grammes of sulphanilamide had been taken in five days he became sick and vomited; before this he had felt weak. On examination he showed a striking degree of pallor. The pulse rate was 120 per minute and the temperature 102.2° F. On the next day he could not sit up in bed to take food, and had to be fed—even the exertion of speaking tired him. The chancroid, however, healed rapidly, with rapid subsidence of the adenitis without abscess formation.

It was observed in one case that evidence of syphilis is not delayed by this treatment: in Case 9 dark-ground examination of the sore was negative. The ulcers healed rapidly under sulphanilamide treatment, but there was evidence of generalized syphilis, and positive Wassermann and Kahn tests three weeks later.

Case 3 was treated initially by injections of solu-septasine, and the clinical response appeared satisfactory.

Summary and Conclusions

1. Ten cases of chancroid have been treated by sulphanilamide. A rapid cure was effected in all.
2. Sulphanilamide does not interfere with Reenstierna's test.
3. Four of the above cases had relapsed after treatment by Dmelcos vaccine intravenously.
4. The good results of treatment appear to be permanent.
5. This method of treatment is suitable for ambulatory patients and out-patients, but strict supervision is required when large doses are given.

Clinical Memoranda

A Case of *B. coli* Meningitis

This condition is apparently a well-recognized though uncommon cause of neo-natal death. Craig (1936) gives a full account of twenty-one cases of neo-natal meningitis, of which ten were due to *B. coli* alone. Cruickshank (1930) found meningitis in 4 per cent. of 800 neo-natal necropsies. The following are some details of the case which I saw.

CASE REPORT

Mrs. A. gave birth to a healthy child of 11 lb. on December 20, 1937; it was her second baby. The confinement was quite straightforward, and both did well. I paid my last visit on December 30, leaving a competent district nurse in charge. Late on January 2, 1938, I was called to see the child as it had refused all feeds that day, appeared unusually quiet, and occasionally cried in a peculiar way. It had been perfectly normal the previous day. I found the baby looking very ill, with a temperature of 100.5° F., a pulse rate of 130, and a respiration rate of 38. There were no physical signs except a patch of stomatitis in the left cheek. The fontanelle was not tense or distended, there was no cervical rigidity, and the ears were normal. The infant showed no interest or resentment on examination and refused the breast. There was a vague history of mild convulsions that day. In spite of taking some expressed feeds and water it died early the following morning. At the necropsy the cerebrum was extensively covered with a thick purulent exudate from which was grown a pure culture of non-haemolytic *B. coli*. There were patches of stomatitis in the mouth, which I regret I did not have cultured.

COMMENTARY

The striking points were the brief history, the absence of indicative physical signs, and the gross pathology found post mortem. In his series Craig observed prematurity and feebleness at birth in 70 per cent. and lesions of skin or mucous membranes in all but three. Here there was definite stomatitis as in three of his cases; other accompanying conditions quoted were otitis, pneumonia, colitis,

and cellulitis of the scalp. He observed that the main clinical characteristics were lack of desire for fluids, increasing bodily weakness, and loss of or failure to gain weight. Fever was never high, reflex changes were inconstant, eye conditions were fairly frequent, convulsions were present in only 10 per cent., and anuria was common in terminal stages. The average age at death was 10.8 days. Gibbens (1932) suggests that the adaptability of the infantile skull explains the soft or spongy fontanelle and probably the absence of early signs of increased intracranial tension; hence the difficulty of early diagnosis. Von Reuss *et al.* (1935) give the late appearance or absence of convulsions as a strong diagnostic point against intracranial haemorrhage. With sepsis of mouth or ears it may be caused by local spread, but actually it is probably a septicaemia due, according to Cooke and Bell (1922), to the increased permeability of the intestinal mucosa in infants, with an absence in the blood of normal agglutinins for *B. coli*. Though Neff (1924) reports a recovery, there is no reference to treatment in the literature.

My thanks are due to Dr. Robb of Exeter for his pathological reports.

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Vulvo-vaginal Diphtheria

Cases of vulvo-vaginal diphtheria are rare enough to merit a note when they occur. The following case had some interesting features.

CASE REPORT

A. B., a girl of 8 years, suffered from a "cold in the head" on January 18, 1938. On January 23 her sister, aged 2 years, developed a sore throat and was removed to hospital on the 25th, suffering from severe faucial diphtheria. On the 27th a brother aged 3 years was removed to hospital also suffering from faucial diphtheria. Contact-swabbing of the members of this family on January 26 showed that the girl A. B. and a brother were both throat "carriers." They were excluded from school, and were directed to attend the school clinic for supervision. On January 25 the child A. B. began to complain of slight urinary disturbance, which gradually got worse, and on February 3 Dr. Dingle was called. He suspected vulval diphtheria, and took a swab which subsequently yielded diphtheria bacilli in pure culture. The child was therefore removed to Sheriff Hill Isolation Hospital on February 4.

On admission the patient, who was well nourished, presented some excoriations of the nares accompanied by a slight discharge from the nose. There was nothing abnormal about the throat or neck glands. The vulva showed definite inflammatory changes. The skin of the perineum had several excoriated papules, while there was a profuse and offensive watery discharge from the vagina. On inspection it was seen that the vaginal mucosa, visible through an annular hymen, was covered with white membrane. Upon the inner surfaces of the labia minora, opposite the vaginal introitus, there were two small shreds of membrane, one on either side. The child was at once given 60,000 units of diphtheria antitoxin, and swabs were taken from the vulva, throat, and nose, while a direct smear was made of the vaginal discharge and