

A Series of Cases of Scrofuloderma and Lupus treated by Tuberculin Injections.

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(Introduced by Dr. SEQUEIRA.)

OF the five cases here shown, the first four illustrate the value of tuberculin inoculations in scrofuloderma. Of these four cases, it will be seen from the notes that they were all cases of infection of the skin secondary to infection of the lymphatic system. Cases I, II, and III have definite histories of tuberculous glands having been scraped or having burst spontaneously, and afterwards, instead of healing, having spread to form more or less extensive ulcers, in spite of various lines of treatment. Case IV appears to have had the primary infection on the hand and subsequently a gradual extension up the lymphatics of the arm as far as the axilla, many ulcers forming as the skin over the lymphatic channels broke down.

The treatment in these cases has been injections of minimal doses of tuberculin at intervals varying from six to ten days. By minimal doses one means the smallest dose which will produce a beneficial result. The opsonic index has been taken at the commencement of treatment, and again, should improvement cease, to indicate whether the dosage is correct. It has not been taken regularly throughout the treatment.

Two different varieties of tuberculin have been used, T.R. and B.E., both made from human strains of bacilli. Cases I and II were treated with B.E. and Cases III and IV with T.R. It appears that these two varieties are equally efficient in bringing about healing.

The local treatment has been, in Cases I, II, and III, the application of a solution containing 3 to 5 per cent. sodium chloride and 1 per cent. sodium citrate. A piece of lint is cut to fit the ulcer, and is wrung out in the warm saline solution and applied under a piece of gutta-percha tissue. This dressing should be changed frequently, as it soon becomes soaked with lymph owing to the difference in surface tension between the tissue fluids and the salt solution. Before applying this solution the skin around should be well greased to protect it from the irritation of the salt. When healing is nearing completion the saline dressing is replaced by eucalyptus ointment.

In Case IV the axillary abscess was incised. No other local or general treatment has been given during the period these cases have been under inoculation treatment.

Case V is one of lupus vulgaris. The treatment of non-ulcerated lupus by inoculation has been somewhat disappointing, except in association with the Finsen light. This is one of the more or less severely ulcerated cases which have been treated successfully by inoculation with tuberculin.

Case I.—M. C. Tuberculous glands of neck (right side) were opened and scraped in August, 1906. The wound was sewn up, but did not



FIG. 1 (Case I).

heal well. A few weeks later the wound broke down, and an ulcer formed which spread upwards and downwards. In November, 1908, she was sent to the Inoculation Department at the London Hospital by Dr. Sequeira. The ulceration was considerably more extensive than is shown in fig. 1 (from a photograph taken July 7, 1908). The opsonic index was fluctuating, probably owing to the reaction following the application of X-rays. Tuberculin injections were commenced in November, 1908, and have been continued until now. The dosage has varied from 0.001 mg. to 0.005 mg. An occasional injection of

staphylococci has also been given. Locally, a dressing of hypertonic-salt solution was used at first, and later this was changed to eucalyptus ointment. Under this treatment the whole of the ulcerated area has completely healed (*see* fig. 2, from a photograph, taken October 26, 1909).

Case II.—A. A., aged 34. In July, 1908, the patient had broken-down tuberculous glands of the neck. They were opened, scraped, and the wound sutured. The lower end of the scar broke down three weeks later. Two chronic ulcers formed in the middle line of the neck, which resisted all treatment for nine months. In May, 1909, she was transferred to the Inoculation Department by Mr. Mansell Moullin. Tuber-



FIG. 2 (Case I).

culin was given in doses commencing with 0·00005 mg. and increasing to 0·005 mg. In August the ulcers had completely healed. A local dressing of hypertonic-salt solution was used at first and later eucalyptus ointment.

Case III.—J. G., aged 6. According to the mother's account, a lump appeared on the right side of the face. This she poulticed until it broke down. Since then the child has been attending various hospitals. The condition has steadily become worse, the ulceration spreading in all directions until June, 1909, when she came to the London Hospital.

A large ulcer about $3\frac{1}{2}$ in. in length was then present on the lower jaw on the right side. The edges were heaped up and keloidal, the floor was covered with unhealthy granulations, the base was infiltrated. Injections of tuberculin have been given for three months, during which time there has been considerable improvement. The case is still under treatment.

Case IV.—Mrs. G., aged 45, sent to the Inoculation Department at the London Hospital by Mr. F. S. Eve in November, 1906. The patient's history was that a small red patch appeared on the thumb in 1899. This became ulcerated. Similar patches appeared on the forearm and arm, each breaking and forming an ulcer. In November, 1906, the whole of the left arm and forearm was swollen and œdematous and



FIG. 3 (Case V).

covered with chronic granulomata surrounded by scar-tissue. Many of the ulcers were secondarily infected. The axillary glands were enlarged and breaking down. The condition was so severe that amputation (fore-quarter) was considered. However, it was decided to try inoculation first. The tuberculo-opsonic index was 0.5. On November 27, 1906, 0.0001 mg. tuberculin was given, and the axillary abscess was drained. On December 13 the arm was free from pain for the first time for three years, and the ulcers had commenced to heal. In January, 1907, the arm completely healed. Eight injections of tuberculin were given, the largest dose being 0.0002 mg. There has been no recurrence.

Case V.—H. H., aged 24. A patch of lupus vulgaris appeared in 1897 on the right cheek. It spread to the neck and round the mouth

and nose. Patches of ulceration also appeared on both arms. In September, 1905, he was transferred to the Inoculation Department by Dr. J. H. Sequeira. Both cheeks presented severe ulceration, which extended downwards on to the lower jaw and on to the nose (fig. 3). The dorsal aspects of the arms also presented large ulcerated areas. The tuberculo-opsonic index was 0.8. Injections of tuberculin have been given, commencing with 0.0002 mg. and increasing to 0.02 mg. In September, 1906, the arms had entirely healed and the face had made good progress. Since then progress has been steady though slow until the present time, when healing is practically complete.

Case for Diagnosis.

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J. E., AGED 20, of dark complexion with many pigmented naevi, presented a symmetrically arranged mass of pigmented, acuminate, sebaceous papules on the nose and contiguous cheeks, forehead, malar regions and chin. The lesions were dark brown, acuminate papules, of the size of a double-B shot, situated round a sebaceous follicle, so that the dilated mouth of the follicle occupied the summit of the papule. The lesions were discrete for the most part, especially in the recently developed areas; but in the older part they are so closely aggregated as to raise the level of the intervening depressions. All the lesions are intensely sebaceous and are remarkable for their deep-brown pigmentation, which extends in some instances outside the base of the papules themselves. The groups on the cheeks are pustular and confluent owing to a superadded infection. From the follicular openings a thinnish oily fluid has been seen to exude, but they are not plugged with fatty comedones. The skin intervening between the papules and beyond the areas involved is not particularly sebaceous, nor are the follicles patent more than is usual. On the back and chest are a few scattered acne papules of an ordinary nature, without pigmentation of any kind. Associated with this rash was a severe necrosis of gums and onychia on several of the nails on the hands and feet.

The patient came under observation two and a half years ago, when the rash only occupied the tip and alæ of the nose and appeared like an acne rosacea on a darkly pigmented skin. As ordinary treatment for