PRIMARY TUBERCULOSIS OF THE SKIN

BY

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Medical literature contains many reports of cases of primary tuberculosis of the skin. The majority of these, however, deal either with examples of primary tuberculosis following circumcision or with the cutaneous lesions which occasionally may be produced by the injection of B.C.G. vaccine. A few years ago W. Krantz¹, while making an extensive review of this subject, was able to collect from the literature about fifteen cases of positive primary tuberculous involvement of the skin with histological and bacteriological evidence. In 1936 Kereszturi and Siegal² recorded two personal observations which were probably instances of primary tuberculosis of the skin, and at the same time they quoted eleven additional examples of primary tuberculosis of the skin with histological proof which had been published since the appearance of Krantz's communication. As the condition would therefore seem to be relatively uncommon the following observation is of interest.

Case record

M. T., a female infant, born of unknown parents, was found on July 31, 1936, in a suburb of Belgrade, and sent to an institution for sick children, where she was kept for nearly two months. She was then discharged from that institution and admitted to the Dom Materinskog Udruzenja. The papers accompanying the child supplied the following information:—'A healthy infant, artificially fed, gain in weight steady and satisfactory. On admission was given injection of B.C.G. The cutaneous and the intracutaneous tuberculin tests are negative.' On coming under my care the infant was about ten weeks old. Weight 4·25 kgm., height 56 cm. She was somewhat pale and moderately undernourished. Pirquet test was performed immediately after admission and was found to be positive. During the first week of residence the infant developed a bilateral otitis media with high fever and severe constitutional symptoms. Both ear drums were incised and in a few days the temperature returned to normal.

On the day of admission to the Dom Materinskog Udruzenja a small brownish red circular crust, about 0·75 cm. in diameter, was noted in the right mammary region (fig. 1). The immediate surroundings of the crust were somewhat infiltrated, and the edges unusually hard. When the crust was removed a bluish red surface, with a central necrotic ulcer was
disclosed. The corresponding regional lymph glands in the right axilla were considerably enlarged and fluctuating, but the skin in this situation was normal. Two weeks later puncture of the glands revealed thick yellowish pus, smears of which were positive for tubercle bacilli. The puncture was followed by a fistula, which is still discharging thick yellowish pus. From that time the temperature started to be irregular, ranging between 37.5° and 38° C. Otherwise the infant looked well and thriving and had made a gain in weight of 8.75 kgm. in four months. Skiagrams, according to Dr. W. Alberti, show 'no evidence of enlarged glands or tuberculosis in the thorax.'

A biopsy of the cutaneous lesion was carried out by Dr. D. Tichomiroff, who reported as follows:

' The biopsy specimen from the cutaneous lesion was a piece of hard, reddish brown skin tissue, 0.7 by 0.8 cm. The superficial squamous epithelium shows moderate keratinization and its basal layers contain less melanin than normally. The connective tissue is almost completely diffusely replaced by a non-specific granulation tissue, which is fairly well infiltrated by lymphocytes and plasma cells. Immediately beneath the epithelial layers, in the connective cutaneous tissue, there are occasional groups of giant cells, which are surrounded by small collections of epithelioid cells. In one such collection there is a large focus consisting of a great number of small tuberculous nodules. This focus contains a large number of lymphocytes, plasma cells, epithelioid cells and occasional giant cells (fig. 2). Some small groups of these cells are very faintly coloured (caseous necrosis). The whole focus is poorly vascularized. In the subcutaneous tissue there are groups of small solitary tuberculous nodules showing initial and central caseous necrosis.'
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Comment

The above case may be considered an example of primary tuberculosis of the skin. That the condition was tuberculous is shown by the histological and bacteriological findings, and it is on the following grounds that the lesion in the mammary region has been regarded as the primary focus:

(a) The absence of evidence of previous clinical tuberculosis.

(b) The slow and torpid evolution of the cutaneous lesion, and the degree of involvement of the corresponding lymph glands with their rapid liquefaction.

(c) The negative reaction to the cutaneous and intracutaneous tests until the age of two and a half months, i.e., until the primary complex was recognized.

(d) The age of the patient.
As to the method of infection there are two possible explanations. The localization of the lesion suggests that the infant had probably suffered from the so-called genital crisis of the breast, and that the 'witch milk' had been suckled (a custom which is quite common in some parts of this country) by a tuberculous individual. Or perhaps the infant had some kind of lesion of the skin which subsequently became inoculated in some other way with tubercle bacilli.

REFERENCES