CLINICAL DEPARTMENT

CONGENITAL TUBERCULOSIS WITH REPORT OF CASE *

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Pehu and Chalié (1908, 1914 and 1915) from an extensive study of congenital tuberculosis accept only fifty-one cases as definitely proven. In the analysis of these cases they conclude that the father plays no part in the transmission, all the cases being the result of transplacental "heredocontagion." In all the cases admitted, the mothers had grave exacerbations of tuberculosis and they regard it as plausible that there was an acute generalization of the disease.

However, Weller (1916) and Warthin (1913) report cases of miliary tuberculosis of the placenta with latent tuberculosis in mothers, and Grulee and Harms (1915) report the case of a child succumbing on the eleventh day with generalized miliary tuberculosis whose mother had healed tuberculosis of the hip joint. Weber in a survey of congenital tuberculosis (1916) states: "It seems to me that we may well suppose that occasionally a mother with some form of chronic, and perhaps even latent tuberculosis, may suffer from a temporary condition of tuberculous 'bacilleamia' during pregnancy, without succumbing; for, probably conditions of temporary tuberculous 'bacilleamia' are not exceedingly rare in the subjects of chronic tuberculosis, apart from pregnancy."

These latter views are mentioned merely as possibilities and, perhaps, to arouse interest in this subject. The case which I am reporting conforms rigidly to the concepts of Pehu and Chalié.

The condition in the foetus may be that of a true tuberculosis in which macroscopic and microscopic lesions are present or the status bacillaris described by J. Honl (1894) in which the tubercle bacilli can be found in the foetal organs, unaccompanied by macroscopic and microscopic changes.

REPORT OF CASE

CASE (No. 5290).—*History*.—A Mexican woman, married, aged 24, was admitted at the University Hospital, Jan. 6, 1921, in a critical condition, delirious, markedly cyanotic, breathing rapidly and perspiring freely. She complained

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of pain in the chest, cough, headache and diarrhea. The first illness began one month ago with weakness, pain in the chest, cough, diarrhea and vomiting, the vomiting occurring after meals. The above symptoms gradually grew worse until two weeks prior to admission when she was confined to her bed. A physician called at this time, made a diagnosis of pneumonia. The symptoms have continued and increased since the onset.

Physical Examination.—The breasts were increased in size, pigmented and colostrum could readily be expressed from both nipples. The apex beat was located in the fifth interspace just inside the midclavicular line. No cardiac murmurs were heard and the second pulmonic sound was accentuated. The pulse was regular but weak. There was impaired resonance over the right base anteriorly and over both bases and apices posteriorly. Large and small bubbling râles and musical râles could be heard over the entire chest, both on inspiration and expiration. A slight friction was noted in the left post-axillary line. The abdominal wall on palpation was relaxed. The liver could be felt two fingers breadth below the costal margin and was slightly tender. The lower abdomen was filled with a palpable rounded mass extending to one inch below the umbilicus. A vaginal examination and the fetal heart tones confirmed a pregnant uterus.

The temperature dropped from 103 to 99 F. on the second day in the hospital and remitted then from 101 to 102 F. or 103 F. The respirations were always above 36 per minute, perhaps an average of 45. The pulse averaged between 115 and 130 until the end. The blood examination gave negative Widal reactions, negative blood cultures, a count of 5,600 leukocytes and a one plus Wassermann. At no time could tubercle bacilli be demonstrated in the scanty sputum. The urine was negative, except for a strongly positive diazo reaction.

Diagnosis.—The condition was diagnosed clinically as acute miliary tuberculosis and pregnancy. Death occurred Jan. 10, 1921.

Necropsy Report.—The necropsy revealed a generalized distribution of characteristic miliary tubercles in all the organs but most numerous in the lungs, making the case a predominant pulmonary form of miliary tuberculosis. The uterus was markedly enlarged, soft, congested and corresponded in size to that of five months pregnancy.

In order to facilitate the examination to determine the possibility of placental and fetal tuberculosis, the entire uterus with the fetus in situ was fixed in 20 per cent. liquor formaldehyd solution over night. The following morning the uterine cavity was opened and the fetus and placenta left exposed for forty-eight hours for complete fixation after which the abdominal cavity of the fetus was opened under aseptic precautions and free from contact with placenta or uterus. A distinct increase of straw-colored fluid was found in the fetal peritoneal cavity. Smears of this were negative for the bacillus of tuberculosis. No evidence of miliary tubercles was found in the abdominal cavity. The liver was somewhat enlarged and section was made of it in a dry field under aseptic precautions. Smears were made of scrapings from the cut surface and in these smears occasionally tubercle bacilli were found with Ziehl-Neelsen's carbol-fuchsin stain. Similar smears were made from the placental cut surface before complete fixation, and prolonged search of these failed to reveal any tubercle bacilli.

The microscopic sections of the fetal liver, heart, lungs, spleen, kidney and intestines showed no tubercles and no thrombotic lesions. The microscopic sections of the placenta showed no tubercles and tubercle bacilli could not be demonstrated by stain and prolonged search.

Pathologic Diagnosis.—Miliary tuberculosis with predominant pulmonary localization; pregnancy; fetal tuberculosis without gross or microscopic lesions.

The finding of the tubercle bacilli in the fetal liver establishes this as a proven case of congenital tuberculosis which conforms to the status bacillaris of J. Honl, since no lesions of tuberculosis could be found after a careful microscopic examination of the fetal organs.

The most striking feature in the study is the difficulty of finding grossly or microscopically, pathologic evidence of tuberculosis or the tubercle bacillus in the placenta or fetus. It may be on account of this difficulty and because a thorough examination of placental tissue is not made routinely that we are lacking in the proof that tuberculosis may be congenitally transmitted from a mother with latent tuberculosis to children who develop the disease in the early months of life.

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