CLINICAL DEPARTMENT

CASE OF PURPURA WITH SYMMETRICAL GANGRENE OF THE FINGERS

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Baby Max, 2½ years old, entered Mary Thompson Hospital, June 17, 1918.

History of Illness.—Jan. 22, 1918, the child was taken ill with fever, restlessness and swelling of the glands of the neck. There was a slight sore throat and cough. During the first week of the attack large purpuric patches appeared over both upper and lower extremities. The temperature ranged between 103 and 104 F. This condition lasted about four weeks, when the purpura began to fade and the fever to subside. After an intermission of two weeks, during which the child seemed fairly well, the temperature rose again and new purpuric patches appeared, this time covering the trunk and the extremities. The second attack lasted about six weeks, the temperature ranging between 101 and 103 F. Then after a second remission for two weeks the first phalanges of all the fingers of the right hand and of the thumb, index, middle and little fingers of the left hand began to look dry and gradually turned black. This was accompanied by another rise in temperature and a breaking down of the purpuric patches, which still remained.

Physical Examination.—The child was brought to the hospital five months after the onset of the disease. Examination showed a fairly well nourished child with marked pallor. Scattered over both extremities were very pale fading purpuric lesions, varying in size from a quarter to a silver dollar; on the outer side of the left thigh was an irregular, moist gangrenous area and a corresponding area on the right buttock. The soft tissues of the first phalanx of the thumb, index, middle and little finger of the left hand were dry, atrophic, and black; the nails were intact, a similar process involved the first phalanx of the little finger of the right hand and the first and second phalanges of all the other fingers (Fig. 1). Otherwise examination revealed little of importance. The tonsils were enlarged but not acutely inflamed. There were a few enlarged cervical glands. The heart and lungs were negative, the liver and spleen were not palpable. The child seemed hypersensitive to touch and complained of pain in the joints, when these were manipulated.

Laboratory Examination.—The blood count showed 3,850,000 red blood cells; 60 per cent. hemoglobin; 20,200 white blood cells, with a differential count of 85 per cent. polymorphonuclears, 12 per cent. small lymphocytes, and 3 per cent. large lymphocytes. The Wassermann test was negative and blood cultures on several occasions failed to disclose any organism. The coagulation time of the blood was normal. The urine and stools were negative. Tuberculin tests were negative.

Course of Disease.—The child remained in the hospital from June 17 to July 6. During the first two weeks the temperature ranged between 99 and 102 F., then it gradually fell to normal. At times there was considerable pain in the joints. The patient was given salicylates, strychnin, glucose solution per rectum, and hot boric acid baths.

On dismissal the child's general condition had greatly improved. He was for the most part bright and happy and had no pain. The purpura had practically disappeared; the gangrenous areas on the thighs had healed. The fingers were practically unchanged.

Since his return home his mother has informed me by letter as to his condition. Improvement continued, though at times fever and a few purpuric patches reappeared, but it was not until February, 1919, that he regained strength enough to walk. The first and second phalanx of the first finger of the right hand and the first phalanges of all the other fingers, except the left thumb and left fourth finger, dropped off, but healed smoothly, without much scar tissue (Fig. 2). Today the child seems quite strong and except for the deformity of the fingers, shows no evidence of his illness.

COMMENT

When in the hospital, the child was seen by a number of physicians and there was considerable difference of opinion as to the etiology

Figure 1

Figure 2

of the gangrene. The general opinion was that the case was one of Raynaud's disease. The absence, however, of local pallor, followed by cyanosis preceding the gangrene, the absence of intense pain in the fingers, and the association with an infectious, rather than with a trophic process, seems to eliminate Raynaud's disease.

Ecthyma gangrenosa was considered; but in this disease the gangrene supervenes on a pustular, not a purpuric eruption and involves multiple areas of the skin and scalp.

Gangrene, associated with infectious processes, scarlet fever, measles, diphtheria, erysipelas and purpura, has long been recognized (disseminated infectious gangrene), and case reports are found scattered through the literature.¹ These reports include gangrene of the skin and extremities.² Munk³ describes a case of spontaneous gangrene, resulting in the loss of several digits of the right hand, in a child of three years who had had a severe attack of measles, complicated with bronchopneumonia. He also reports a case in a 4 year old child following influenza, in which the right foot was affected. In these instances the gangrene seems to be due to an infectious arteritis.

In regard to purpura, careful search of the literature has failed to reveal a report of symmetrical gangrene of the extremities, associated with this disease, although gangrene of the purpura patches is a fairly frequent occurrence. Nevertheless, it seems probable that an infectious obliterating arteritis—the infection being the same as that which caused the purpura—is responsible for the gangrene of the fingers in the case here reported.

1. Hulot, J.: *Traite des Maladies de l'Enfance* (Grancher-Comby), Ed. 2 4:852.

2. Lipes, H.: *Albany M. Ann.* 21:1, 1900.

3. Munk, J.: *Arch. méd. des enf.* 1:434, 1898.