

GANGRENE OF TOES IN AN INFANT, DUE TO SCALD *

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The case reported herewith is of interest first, because of the etiology, and, secondly, because of the satisfactory end result of conservative treatment.

REPORT OF CASE

History.—An infant, 5 days old, was seen in consultation for gangrene of the toes of the left foot which had resulted from a scald during delivery. The mother had been advised to sit over a pan of hot water to hasten parturition. While doing so a foot presented and was scalded.

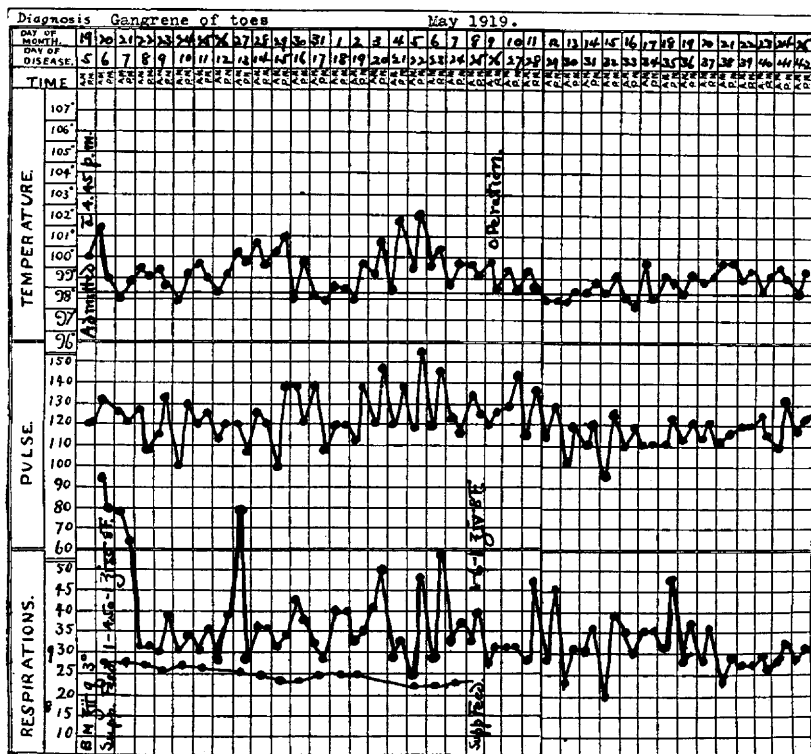


Fig. 1.—Clinical record.

Examination.—The left foot showed a scald of the second and third degree extending up above the ankle on the anterior surface. Gangrene extended to Chopart's line. The infant appeared otherwise normal and was not prostrated.

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* From the Surgical Clinic of the Children's Hospital.



Fig. 2.—Appearance of the foot at entrance to hospital five days after scald.

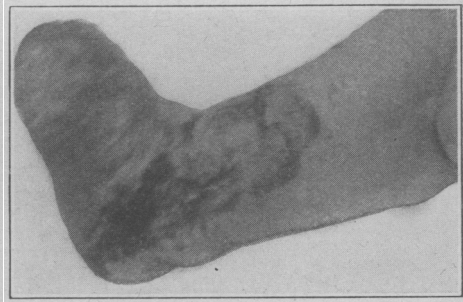


Fig 3.—Cast of toes sloughed twelve days after scald.

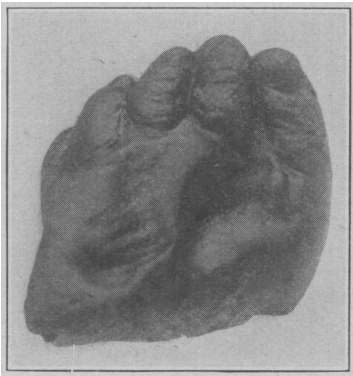


Fig. 4.—Dorsal view of slough.

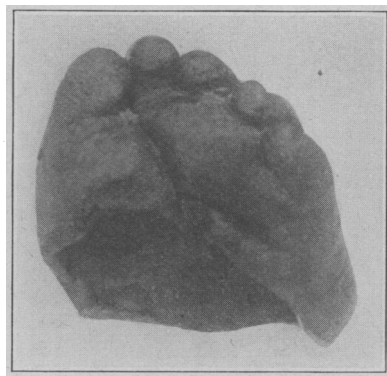


Fig. 5.—Plantar view of slough.

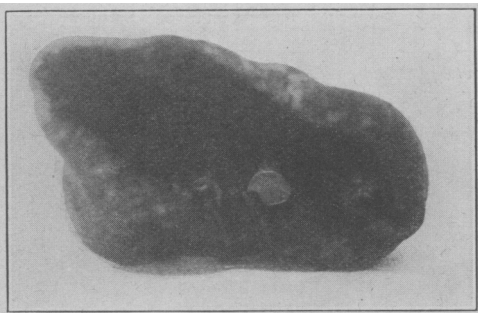


Fig. 6.—Proximal end view of slough showing ends of phalanges.

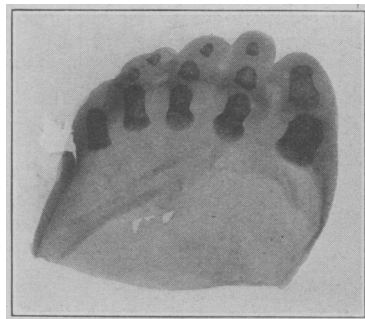


Fig. 7.—Print from a roentgenogram to show separation of phalanges from foot.

Treatment.—It was considered advisable to send the baby to the Children's Hospital for treatment. After consultation with other members of the staff it was decided to proceed conservatively, avoiding amputation if possible. The foot was placed on sterile towels for open air treatment, and attention was directed to the patient's general condition.

The baby entered the ward May 19, 1918, and its condition was satisfactory after the second hospital day. One week later, the five toes came off as a cast, leaving a healthy granulating surface. Feedings were well taken and normal weight was maintained. The first week in June, a swelling was noticed above the right knee, which increased in size fairly rapidly and became fluctuant. It was assumed to be a metastatic abscess. The roentgen-ray examination of the knee and thigh showed no bone involvement. The abscess was incised and drained under ether anesthesia June 9. A large amount of pus was evacuated. By June 16 there was no more drainage. June 25 the patient was discharged with the incision in the thigh healed and the granulating surface on the left foot was healing well under boric acid ointment dressings.

Result.—A note from the mother, dated August 6, states that the foot is entirely healed. The baby weighs 11 pounds and is well and happy.

COMMENT

Infectious and noninfectious gangrene may occur in infants and children. It may be caused by (1) traumatism of various kinds, including the accidental strangulation of parts; (2) local action of chemicals; (3) disorder of the nervous system, as in Raynaud's disease; (4) constitutional diseases, i. e., hemophilia, purpura and diabetes; (5) thrombosis and embolism; (6) infection by bacillus of malignant edema or other organisms; (7) a combination of morbid influences, often a mixed infection, complicating or following such diseases as scarlet fever, measles, diphtheria, varicella, erysipelas, typhoid, and other fevers; (8) ecthyma gangrenosa. In short, as Kelley states,¹ the possible causes in children include all those which produce the disease in adults, except senile changes.

The interesting point in the case reported is the conservation of a useful foot by allowing the gangrenous tissues to slough rather than removing them by amputation. The abscess of the right thigh was presumably metastatic from the slightly infected granulations of the stump, as the umbilicus was clean and no other focus of infection was present.²

1. Kelley, S.: *Surgical Diseases of Children*, 1914, p. 148.

2. The following references may also be consulted:

Michael, M.: *Am. J. Dis. Child.* **20**:124 (Aug.) 1920.

Graham: *Diseases of Children*, Philadelphia, Lea & Febiger, 1916, pp. 601, 580, 125, 649.

Kerley: *Practice of Pediatrics*, Philadelphia, W. B. Saunders Co., 1914, pp. 356, 496.

Holt: *Diseases of Infancy and Childhood*, New York, D. Appleton & Co., 1916, pp. 286, 258, 413, 505, 552, 969, 985.

Stelwagon: *Diseases of the Skin*, Philadelphia, W. B. Saunders Co., 1915, p. 427.