CUTANEOUS MYIASIS IN INFANTS

BY

NELLES SILVERTHORNE, M.B.,

AND

ALAN BROWN, M.D., F.R.C.P.(C.).

(From the Hospital for Sick Children, Toronto.)

Sufficient interest is attached to the occurrence of cutaneous myiasis in infants to warrant the publication of the report of three cases of this clinical entity.

Case reports.

Case 1.—K. E., a male, aged three weeks, was admitted on June 9, 1934, and discharged on June 20, 1934.

Complaint. Rash on arm and neck for one day.

History of present illness. The infant was quite well until the day of admission, when spots appeared on the arms and neck. The baby had been sleeping out of doors.

Physical examination revealed a well-developed and well-nourished male infant who was not acutely ill. The cutaneous system showed the presence of what appeared on first examination to be several scattered pustules on the right arm and on the right side of the neck. From the area on the right side of the neck a small maggot was removed with forceps. A definite small purulent sinus was left, surrounded by a red, indurated margin. This sinus in the side of the neck is shown in fig. 1.

Fig. 1.—Case 1.
ARCHIVES OF DISEASE IN CHILDHOOD

Case 2.—P. P., a female aged three, was admitted on June 14, 1934, and discharged on June 18, 1934.

**Complaint.** Red spots resembling bites under eye and behind the ear for two days.

**History of Present Illness.** The baby was in good health until two days prior to admission, when two red spots appeared under the eye and one behind the ear. They resembled bites and were swollen. From each of these areas several small maggots were extracted. This infant also had been sleeping out of doors.

**Physical Examination** revealed the same type of lesion as in the last patient (fig. 2).

![Fig. 2.—Case 2.](image)

Case 3.—R. G., a male aged five weeks, was admitted on June 22, 1934, and discharged on June 25, 1934.

**Complaint.** Rash on left arm for one day.

**History of Present Illness.** The baby was perfectly well until the day before admission. It was noticed that there were several small 'mosquito bites' on the left arm. The left hand began to swell, became red, and pus discharged from these areas which now appeared like 'boils.' Little maggots were seen wriggling in the centre of these spots. As in the previous cases, the infant had been sleeping out of doors.

**Physical Examination** revealed an acutely swollen left lower arm (fig. 3) and oedematous hand with twelve or more lesions resembling furuncles. From thirty to forty larvae were removed. Some lesions contained as many as six larvae.

**Comment.**

The skin infestation in these three infants is due to the deposition of the larvae of a species of fly known as Wohlfahrtia vigil (Walk.). The occurrence of this fly as a human parasite was first reported in 1920 from two cases by E. M. Walker1. The same author described two more cases in 19222, and gives a summary of eight cases in different parts of Canada in 19313. In the last article the author briefly describes the characteristics and habits of the fly. The larvae are discharged directly on the skin surfaces of the patient by the adult gravid fly. They quickly migrate to areas where there are folds of skin, e.g. at the side of the neck and axilla, and burrow into the subcutaneous
tissue producing an inflammatory reaction. Ford has made some interesting observations on the behaviour of this species of fly, and in her article discusses its life cycle and feeding habits. Patients with this infestation are young infants who have been sleeping out of doors. Most reported cases have occurred in the month of June. In the present series the babies were healthy, sleeping in the open air, and all skin lesions were produced in the month of June. In the observations of Ford on larviposition, she mentions the fact that the gravid fly was definitely attracted by the head and face of the the rabbit used in her investigation. In the three cases cited most of the lesions occurred around the upper part of the infants’ bodies. It will be noticed that in one case of the series a lesion was found on the lower eye-lid. In a search for places where the flies live, Walker states in a personal communication that they were found along railway tracks, and that the larval stage probably develops in young mammals. In the three reported cases larvae obtained were reared into adult flies by Dr. Ford, who has furnished us with the following data:

Case 1. June 12, 1934—Larva was 13 mm. in length.
   , 15, , pupated.
   July 1, , Adult fly emerged.

FIG. 3.—Case 3.
Case 2. June 15, " Larvae were 5 mm. in length. 
  " 16, " " 10 " " " 
  " 17, " " 15 " " " 
  " 18, " " pupated. 
July 4, " Adult flies emerged.

Case 3. June 23, " Larvae were 10 mm. in length. 
  " 24, " " 15 " " " 
July 2, " " pupated. 
  " 9, 10 and 12, Adult flies emerged.

The treatment followed in these cases was quite simple. The larvae were removed by forceps or by pressure and the wounds dressed with moist compresses. The remaining inflammatory part of the lesions responded quickly under this treatment, disappearing in a few days. In discussion of the prevention and treatment of this condition, Walker stresses the necessity for the careful screening of young infants sleeping out of doors during the summer months. He also states, 'The presence of pimple or boil-like lesions of the face, neck, chest, arms, or other parts liable to be exposed during sleep, should suggest the possibility of myiasis, in which case the larvae should be removed immediately using antiseptic precautions.'

Summary.

1. Three cases of cutaneous myiasis produced by the larvae of Wohlfahrtia vigil (Walk.) in infants are reported.
2. The lesions occurred in young healthy infants sleeping out of doors during the month of June.
3. Prevention and treatment are briefly mentioned.

The authors wish to thank Professor E. M. Walker and Dr. Norma Ford, of the Department of Biology, University of Toronto, for the information furnished on the species of fly producing this condition.

REFERENCES.
2. Idem., ibid., 1922, IX, 1.