March 10. No discharge. Wound practically closed. General condition of patient fair.

March 19. Patient sitting up to-day. No pain or temperature. Very slight motion of knee can be obtained.

April 4. Discharged home.

Patient had general atrophic process for a long time before the last operation, and same had been slowly progressive. It remains an open question as to the advisability of using Cargile membrane and as to operating upon cases with this diagnosis. Certainly no advantage has been gained from the arthrotomy in this case. Considerable difficulty was encountered from subsequent sloughing of the silk sutures used at time of operation. The entire Cargile membrane has sloughed out and there has been no benefit to the patient for all her suffering. The knees are straight and stiff, but there is so little power in her arms and hands that it is impossible for her to get up on her feet. The pain has largely disappeared.

(To be continued.)

Clinical Department.

CUTANEOUS DIPHTHERIA. FATAL PRIMARY CASE.*

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CUTANEOUS diphtheria associated with diphtheria of the respiratory tract is not particularly uncommon. It has been seen at the South Department during the past three years in the following conditions:

(1) About the face and hands, often appearing much like an impetigo contagiosum, less often with distinct membrane. Cultures show virulent Klebs-Loeffler bacilli, and both types clear rapidly with the administration of antitoxin.

(2) On the auricle, chiefly the concha, extending from the middle ear; and behind the auricle inoculated upon the eczema so common in this region in children.

(3) Inoculated upon lupus vulgaris lesions on the face, following curettage.

(4) In wounds and abscesses on the neck and face.

(5) Inoculated upon varicella lesions, most commonly on the vulva or vagina.

At times it is severe in these locations, and similar cases of cutaneous diphtheria have been known to be the cause of small epidemics. That it may be fatal the following case shows. I am indebted to Dr. John H. McCollom for the privilege of reporting it.

H. B., age seven months. Admitted to the South Department March 24, 1908, referred by Dr. J. S. Stone, from the Children's Hospital Out-Patient Department.

Family history. — Negative.

Past history. — Breast fed. Had always been well except for eczema of pubic region, groins and thighs since birth.

Present illness. — Two days before admission, swelling and redness became marked over the area of the abdomen, genitals and thighs covered by the diaper. There was a considerable thin discharge. Feverish and fretful.

* Read before the Boston City Hospital Alumni Association Annual Clinic, Feb. 2, 1910.

Physical examination. — Conscious, marked prostration. Well developed, fairly well nourished. Mucous membranes of mouth, throat and nose show nothing abnormal. No nasal discharge. Neck negative. Heart action rapid, 140, first sound softened, no murmurs. Lungs normal except for a few crackling râles at both bases.

Over the lower third of the abdomen, the vulva, perineum, anterior part of buttocks and the upper quarter of the internal surface of the thighs, the skin is markedly reddened, swollen and covered with a grayish hyaline membrane, firmly adherent, and when forcibly removed leaves a granular area which bleeds easily. Scattered through this area, especially the lower part, are small various shaped islands of healthy skin, some connected by narrow bands of healthy skin. No vesicles or pustules. Skin elsewhere normal.

The treatment was antitoxin, 12,000 units, strychnia and boric acid dressings locally.

On the third day after admission the membrane was clearing rapidly. No improvement in general condition; heart rapid and very weak. The temperature was subnormal on entrance, but this day rose moderately. During the day the color became of a peculiar gray shade, the heart weak, rapid, the first sound almost imperceptible. Numerous crepitant râles at the bases. Death occurred at 5 P.M.

Cultures from the skin showed typical diphtheria bacilli, and were identified by Dr. Lawrence Rhea by cultural tests and animal inoculation in the laboratory. Cultures from the nose and throat and from the nose and throat of the mother showed no diphtheria bacilli. The post-mortem showed, beside the skin lesions, some hyperplasia of the lymphoid tissue, "septic" spleen, beginning bronchopneumonia of both bases and some pus in the middle ear.

The source of the infection was not discovered. There was no known exposure. Neither this child nor any other member of the family had had a sore throat, coryza or other illness recently. It seems probable that the mother or an attendant must have carried the disease on their hands and infected the eczematous lesions in washing the baby or changing its diaper.

The onset, masked by the previous eczema, was probably not recognized, and not until the process became widespread and the symptoms severe was a physician consulted. The severe systemic symptoms in this case may well be expected when we consider the extent of the membrane and the amount of toxin which must necessarily be absorbed.