

boiling or sterilization was the cause of the scurvy, but a careful examination of the case shows that the quality of the mixture was insufficient in three of the cases (Nos. III, IV and XII), considering the age of the child. In one of these, Case XII, the milk was heated only to 167°, and the child recovered on antiscorbutic treatment and increasing the quality of the food without omitting the Pasteurization, showing conclusively that the trouble could not be laid at the door of this process. This leaves Cases II and IX, where the quality of the food, although not up to the standard, was of fair strength, where in one case boiling and in the other case steaming at 212° was employed. As in both cases the quality of the milk was improved when the sterilization was omitted, it is not fair to say that the doing away with sterilization was the cause of the recovery, although this was perhaps a factor in it.

The treatment in these cases consisted in giving fresh cow's milk and orange-juice; and in some of the cases beef-juice was added.

Clinical Department.

A CASE OF TOTAL EXCISION OF THE SCAPULA FOR SARCOMA.¹

BY J. COLLINS WARREN, M.D.

THIS case seems worthy of record, as it is the first case of excision of the entire bone performed at the hospital.

A. W., fourteen years of age, was in good health before the present disease. There is no history of similar disease in the family. Two months before entrance the patient fell on his back, hitting the right shoulder-blade. Immediately after this a soft swelling was noticed over the right scapula, which subsided somewhat under the use of liniments. When the general swelling disappeared, a hard lump was left behind which has doubled in size in the interval. He has lost flesh and strength since the appearance of the tumor and looks somewhat anemic. The entire right scapula appears to be involved in a firm elastic non-inflammatory growth (Fig. 1). The skin is normal in appearance and freely movable over the tumor. There is no pain or tenderness on pressure in the tumor, no glands are to be felt in the axilla or above the clavicle.

December 28, 1895. Total excision of the scapula, according to Treves method, was performed. The subclavian artery was controlled by digital pressure by Dr. H. H. A. Beach. A vertical incision was made along the inner border of the scapula; and a second incision at right angles to this was made over the spine, beginning at the acromion process. The skin flaps having been reflected from the tumor, the trapezius was separated from the inner and superior border of the bone. The acromion process was then separated from the clavicle, and the coraco-clavicular ligament was divided. The muscular attachments at the outer borders of the bone were next severed, and the tumor was seized and lifted upward, forward and outward. This movement brought into prominence the coracoid process, which now projected backwards. The muscular attachments of this process being divided, the shoulder-joint was opened, the glenoid

cavity liberated and the scapula removed. Two small glands at the inferior angle of the scapula were also removed. The hemorrhage was slight during the operation, about thirty vessels being tied. A thick layer of the capsule of the bursa beneath the deltoid was stitched to the periosteum at the outer end of the clavicle. The trapezius and the deltoid muscles were stitched together and all divided muscular tissues connected with the arm were attached when possible to the muscular stumps springing from the thoracic wall. The wound was united with silkworm-gut sutures, and a small gauze drain was left in for twenty-four hours in the axilla. There was little shock, and the wound healed by first intention.

The boy has since been subjected to the Coley antitoxin treatment on the principle of a post-operative treatment for sarcoma.

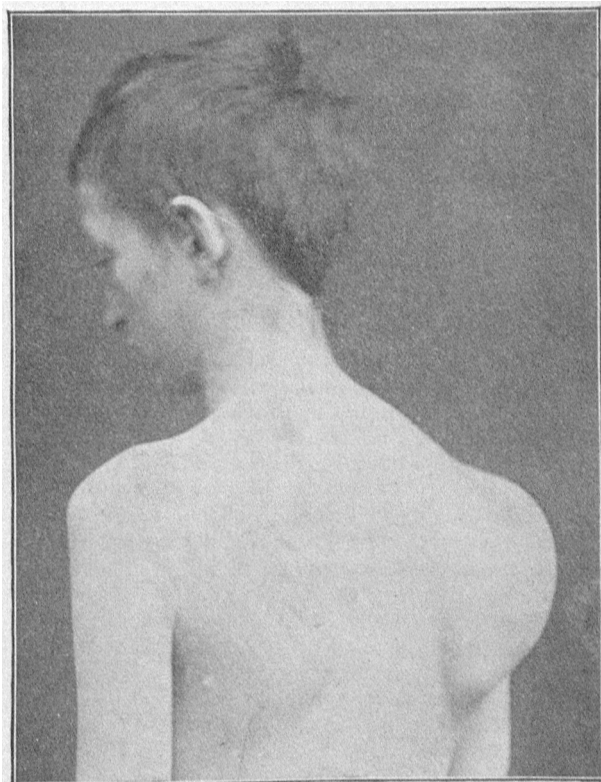


FIG. 1.

The patient was first inoculated with three minims, January 20, 1896, thirty-two days after the operation. After four hours the temperature rose to 101.8°. No constitutional symptoms. Eighteen hours after inoculation the temperature had reached normal again; the pulse was scarcely affected at all.

Second inoculation, January 22d, six minims. Eight hours later the temperature was 99.8° and remained so during the 22d and 23d, striking normal again on the 24th.

Third inoculation, January 23d, eight minims. No reaction. The temperature, which at time of inoculation was 99.2°, steadily came down to subnormal, so that eight hours after the temperature was 97.2°.

Fourth inoculation, January 24th, six minims. No local or constitutional reaction. Temperature and pulse continued close to normal.

¹ Read at a Clinical Meeting of the Medical Board of the Massachusetts General Hospital.

Fifth inoculation, January 27th, eight minims. Eight hours later the temperature rose to 99.8°. Slight constitutional symptoms.

Sixth inoculation, January 28th, ten minims. One hour and a half after injection the temperature began to rise, and in six hours reached 101°. Normal again in twenty hours. No constitutional disturbance. Slight local reaction, that is, redness and swelling.

Seventh inoculation, January 30th, ten minims. No reaction whatever.

Eighth inoculation, January 31st, ten minims. Eight hours later the temperature rose to 102.2° without any constitutional disturbance. Considerable local reaction. The temperature did not touch normal again until February 2d, when the last injection (ten minims) was given without reaction of any appreciable kind.

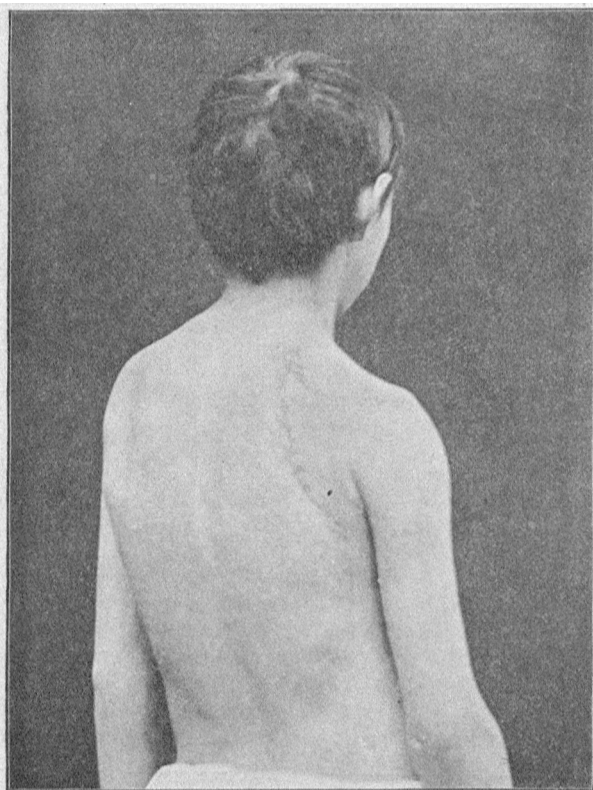


FIG. 2.

The syringe used had a glass barrel ground at the ends to hold the needle and piston collar. The plunger was of asbestos, which was heated in a flame while the other parts were boiled. The skin was prepared several hours before injection by scrubbing with ether and corrosive and dressing with a corrosive pad.

These injections were all given in the afternoon between three and five o'clock. The material used was the filtrate containing the toxic products of the streptococcus of erysipelas and the bacillus prodigiosus.

Notwithstanding this treatment two small glands appeared at the lower end of the dorsal wound about one month later. These were promptly removed and there has been no recurrence since.

The patient when last seen, on May 16th, was in excellent health and was able to use the forearm with

ease, but was able to lift the elbow only a few inches from the side of the body. The contour of the shoulder (Fig. 2) is remarkably well preserved.

RESULTS OF THE USE OF ANTITOXIN FOR IMMUNIZATION AGAINST DIPHTHERIA AT THE CHILDREN'S HOSPITAL DURING THE PAST FOUR MONTHS.

BY F. GORDON MORRILL, M.D.

THE results obtained from immunization during the first five months of the year 1895 were such as to justify its further trial; and at the request of the visiting staff an appropriation was voted by the trustees of the Children's Hospital for "the prevention of the occurrence of diphtheria in the wards."

The first step taken was to engage the services of Dr. H. W. Gross as resident bacteriologist; and from December 15, 1895, to April 10, 1896, the following rules were observed, with one exception to be noted later on:

(1) No case to be refused admission so far as diphtheria is concerned, unless clinical evidence of the disease is present.

(2) One-half the usual curative dose of antitoxin (Dr. Ernst's) to be given each case when admitted, and the child to be placed in the upper story of the east wing (containing five observation rooms and two small wards of six beds each) and kept there until two cultures made twenty-four hours apart have shown the nose and throat to be free of the Klebs-Löffler bacillus. When this has been demonstrated, the patient to be transferred to a common ward — medical or surgical as the case demands.

(3) Cases in the common wards to be immunized every twenty-eight days, and an examination of all noses and throats (bacteriological) to be made every week.

(4) Should the bacillus (without membrane) be found in any case, the child to be moved to the upper story of the east wing. If no antitoxin has been used within ten days in such a case an immunizing dose to be given at once and then repeated every twenty-eight days.

(5) Should a case of what may be properly called "clinical diphtheria" appear, it is to be at once transferred to the City Hospital if the patient is in condition to bear transportation; if not, the case to be moved over to the regular infectious ward.

(6) Cases transferred from the common wards to the upper story of east wing to be kept there until three successive cultures have shown them to be free of the bacillus.

The scheme as outlined above seems to be as perfect as the construction of the hospital would permit. At times, owing to the large number of new cases admitted, it has been impossible to keep each child in a separate room until his or her bacteriological status could be ascertained. Consequently cases with the bacillus have occasionally occupied beds adjoining those of children whose noses and throats were clear. The same thing of course has occurred from time to time in the common wards — a weekly examination (bacteriological) of each case being the most which could be done by Dr. Gross, of whose work I cannot speak too highly. In spite of the fact that at no time was the house clear of the bacillus from December 18, 1895, to April 10, 1896, excepting from January 6th to 11th, but one case of what is now termed "clinical" diphtheria has been observed. In this particular instance the immunization had been omitted (unintentionally, of course), and thirty-six days had elapsed since antitoxin had been given. So far as we have observed at the Children's Hospital, our experience goes to prove that immunization lasts twenty-eight days; but that it is unsafe to depend upon it for a longer period. Last year the bacillus was not found in any case in a period of time less than thirteen days after antitoxin had been used; but this year it has