

years of age was admitted under my care in the Children's Hospital in August, 1901. The history was that of chest trouble two years before, from which he recovered; then six months before admission he began to suffer from shortness of breath, and his general health failed; when he presented himself in my consulting-room before admission to hospital, I found his right pleural cavity completely filled with fluid. After resection the bacteriologist reported that he could not get any culture to grow, but in the pus he found some misshapen pneumococci which he believed to be dead. The pus was, therefore, sterile at the time of operation. In the majority of instances, however, when an empyema of pure pneumococcal infection is properly treated the case runs a favorable course and progresses rapidly to a cure. Even under most adverse conditions, if efficient precautions are taken to avoid mixed infection, one may secure a speedy convalescence, as indicated in such a case as the following:

J. M., aged 23. Was operated upon, December 22nd, 1901. He had been extremely ill with pneumonia, and it was thought could not recover. A week previous to operation I had opened an abscess in the right arm. Aspiration was performed immediately below the angle of the scapula on the right side, and pus was found on directing the point of the needle inwards towards the spine. Here Dr. J. D. Thorburn had diagnosed a localized empyema. The ninth rib was resected for  $1\frac{1}{2}$  inches, and a drainage tube placed in position. The cavity was markedly localized, and was apparently chiefly in the space bounded by the mediastinal pleura. The bacteriologist found a pure culture of the pneumococcus. The discharge rapidly diminished, and the tube was removed on the fourteenth day, and the wound healed. The man is now living in California, and is in excellent health. He was heard from recently as pitching in a baseball team.

Undoubtedly, the most of our cases which run a chronic course are those where mixed infection has occurred, or where the empyema to start with has been due to some infection other than the pneumococcus. Mixed infection may occur at the time of operation, and, therefore, our technique must be most carefully carried out in order to prevent, if possible, such an untoward event when we proceed to resect for empyema. It is worthy of note here that an empyema may burrow and point beneath the skin, and still remain of pure pneumococcal character. The following illustrates such a condition:

O. S., aged 7. Admitted January 15th, 1903. Above and internal to the right nipple was a fluctuating swelling about two inches in diameter. Apex beat was in the sixth interspace four inches from the middle line. I resected the sixth rib below and external to the right nipple. The swelling in the anterior aspect of the chest now disappeared on pressure, and subsequently on