

The two earlier cases had run protracted courses, but in the end recovered completely except that some scarring remained at the sites of the ulcers. Accordingly, to the third patient a favorable prognosis was given, but unfortunately in this case, himself a physician, a secondary infection by tuberculosis took place, and death resulted.

This patient was under observation from October, 1908, till April, 1909.

At the onset there was found only swelling of the lingual tonsil; but in the second month a tiny ulcer appeared on the left wall of the throat, cultures from which yielded an almost pure growth of the pneumococcus.

In December there developed an acute œdema of the mucosa covering the arytenoids and the epiglottis. The condition varied from day to day, and once there was slight dyspœa.

The patient was inoculated in January with a pneumococcus vaccine prepared from his own cultures, but he received no benefit from this.

Soon afterwards his condition became much aggravated. Fresh ulceration occurred in the pharynx and over the arytenoids, and the ventricular bands "were either covered with some ashy-grey deposit or were infiltrated." Examination of the lungs revealed slight dullness and harsh expiration "on the right side, corresponding to the spine of the scapula."

Now, and apparently for the first time, tubercle bacilli were found in small numbers in the sputum.

From this time on the patient went downhill rapidly, and died in the end of April, whether of pulmonary tuberculosis or of pneumococcus infection or of both combined being undecided.

Scrapings of the ulcerated surfaces were examined at different times, and the reports of the findings were of no slight interest.

Thus on the 9th of February "Dr. Bulloch reported the extremely remarkable result he had obtained from the scrapings of the patient's pharyngeal and laryngeal ulcers which I had effected two days previously. Whilst the *pharyngeal* specimens were simply teeming with *pneumococci* without any evidence of tuberculosis, the scrapings taken from the ulcerated spots on the *arytenoid* cartilage contained large clumps of *tubercle bacilli*. together with very numerous pneumococci."

A subsequent report from Dr. Collins, dated March 24th, runs as follows:

"*Posterior Part of Tongue.* — Scattered single and one large clump of tubercle bacilli, some pneumococci, and a few staphylococci and streptococci.

"*Pharynx.*—A few tubercle bacilli and a few pneumococci.