Acute Peritonsillar Abscess Due to Bacillus Welchii

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In Europe, in peacetime, an infection by the bacillus *aëro-genus capsulatus* of Welch is a rarity. Access for these microorganisms is provided by crushing wounds which destroy a considerable amount of tissue, permitting introduction of the bacillus into deep areas where there is little or no access of oxygen, and thus providing most favorable nutritional conditions for the development of the saprophytic, anaerobic bacteria. Commonly associated are vibrios septique, the bacillus oedematiens and a facultative streptococcus. We learned the importance of gas gangrene through the experience of the Great War. Although we saw numerous cases at that time beginning from wounds of all parts of the body, we never saw a case where the infection started in the mouth.

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Some years ago I had the occasion to observe the following case.

A man, 53 years of age, was in a hospital for treatment of neuritis in the peroneal nerve. Any day, he found it difficult to swallow and his temperature was 99.8° F. The doctor of the hospital diagnosed his case as acute tonsillitis. Mouthwash was applied. On the third day of the disease a marked prostration with leucocytosis developed and I was called as a consultant.

The patient complained of having difficulty in swallowing, pains were referred to the left ear. There was marked prostration, sensory clear. Abundant secretion of tenacious saliva. Relative mobility of jaw, no lock-jaw. Temperature 101°. The tongue was dirtily coated. Foetor ex ore. The head was held stiff and turned toward the left side. Cervical adenitis and tenderness of these lymphglands. Beneath the tip of the mastoid I could feel crepitation about the size of a 50 cent coin. Both tonsils were coated with dirty greyish-green exudate, on the left side more than on the right side. The uvula was edematous and pushed to the right side. The left tonsil was slightly hidden by the swelling of the anterior pillar. The mucous membrane was reddened, a bluish-green discoloration was to be seen in the external portion of the left palato-glossal fold. Fluctuation on the typical spot was palpable.

Therefore, this case did not reveal anything of importance other than the crepitation at the jaw angle.

Immediate incision under local anesthesia with a curved bistoury was performed. Foul smelling greenish pus was discharged. Two hours later the whole left side of the neck was thickened and crepitation was palpable. Antitoxin was immediately given. Nevertheless the process extended rapidly through the left arm, head, trunk, both legs and within 12 hours the whole body was distended and revealed crepitation. 24 hours later the patient died.

Culture from the pus of the incision showed streptococcus hemolyticus and bacillus *aëro-genus capsulatus* of Welch.

After the clinical course and the bacteriological examination there could be no doubt, that in this case a gas gangrene proceeded from a peritonsillar abscess. The *We/c/i*-bacillus must have been present in the peritonsillar tissue before the incision was made, as crepitation could be palpated

at the jaw angle at that time. The peritonsillar abscesses always start from a tonsillitis, therefore we have to assume that the We/cA-bacillus, together with the streptococcus, migrated through the tonsil. In the peritonsillar tissue and spaces there is sufficient muscle tissue where the bacillus can develop and spread.