

rheumatic. After the tenth day of the illness a harsh, double aortic murmur developed, with visible pulsation of the head and neck and smaller arteries. A congestive bronchitis appeared, and the patient became weaker and restless. The temperature varied between 99° and 101°; respirations 36 to 46, and pulse from 96 to 120 throughout the disease. No palpitation, or pain over the cardiac region, was at any time complained of. There were no rigors. Rheumatic pain and tenderness developed in the right shoulder, lasting for a few days. The patient died suddenly from heart failure on the forty-fourth day of his illness. Dr. Geo. Ross, who had seen the patient in consultation ten days before death, was strongly inclined to consider the case as one of malignant endocarditis.

Dr. Johnston, who exhibited the specimen for Dr. England, said the heart showed extensive acute endocarditis of three segments of the aortic valves, with large vegetations upon their free edges. Besides the recent endocarditis, the valves showed signs of old chronic endocarditis. Fusion of two of the segments of the valves had occurred, which was not uncommon in ulcerative endocarditis. A perforation was noticed directly in the middle of a segment with complete destruction of valve tissue at that point. The perforation was plugged with fibrin which prevented any leakage when water was poured upon the valves. This, Dr. Johnston suggested, might explain in some cases the disappearance of a murmur. The streptococcus pyogenes was found.

Dr. Geo. Ross considered the case of clinical interest. The prostration noticeable in this malignant disease was an important point. Another point was the different phases in the temperature curve; few diseases were so deceptive in regard to the temperature curve. Dr. England's report places another case on record where a heart already the subject of endocarditis subsequently becomes the subject of ulcerative endocarditis.

*The Bacilli of Diphtheria.*—Dr. Wyatt Johnston exhibited cultures of the Klebs-Löffler bacilli obtained from a case of diphtheria. The bacteriological examination of the diphtheritic membrane, as recommended by Roux and Yersin, was likely to prove of great practical diagnostic value in doubtful cases, as a positive diagnosis was possible within twenty-four hours. The appearance of the bacteria and their mode of growth were quite characteristic. Portions of membrane intended for examination could be sent dry in clean glass or between folds of blotting paper or cotton. In three cases of genuine diphtheria these characteristic bacilli were found in large numbers, while two other cases with a suspicious looking exudation on the tonsils were free from them, and proved to be simple cases of tonsillitis. One case where a peculiar fibrinous false membrane had formed in the nose, and a

case of membranous conjunctivitis, were free from the diphtheritic organisms. Dr. T. M. Prudden's experience with what seemed to be cases of genuine diphtheria, where the bacilli were uniformly absent, was unique, and not borne out by his later results. It was probable that a certain proportion of primary acute inflammations of the throat, characterized by the presence of what was anatomically diphtheritic membrane, was due simply to septic organisms, such as the streptococcus pyogenes.

*Discussion.*—Dr. A. D. Blackader had translated (some twelve months ago) an article on this important subject from *Le Journal de L'Enfance*. He had been surprised at the results obtained by Prudden on his first investigation for the Klebs-Löffler bacillus. It was evidently the ptomaines which produced the poisonous effects.

Dr. Geo. Ross remarked that it was of great importance in doubtful cases to arrive at just conclusions. From recent work more than one disease was shown to be characterized by the formation of membrane. In two cases which had recently come under his notice in the General Hospital, one was a young child with a suspicious-looking follicular tonsillitis which was examined for the Loeffler bacillus, but none were found; the other case was admitted for quinsy, and when first seen by him the patient had had rigors and complained of severe pain at the angle of the jaw, with difficulty of swallowing. The tonsils were considerably swollen, and a suspicious, small fibrous patch was noticed on the uvula. The next day the patch had extended, and he felt quite sure that the case was one of diphtheria. Dr. Johnston took a culture from the patient's throat, which showed the Loeffler bacillus abundantly. The most extravagant views were held upon the subject of diphtheria. Dr. Jacobi looked upon all cases of tonsillitis as diphtheria. The only way that such views can be positively disproved, will be by bacteriological examination.

Dr. Buller remarked that when true diphtheria attacked the conjunctiva, the local symptoms were very severe, and always sufficiently well marked to make easy the elimination of other diseases characterized by the formation of false membrane.

Dr. Birkett stated that a case which had come under his notice, and which had been mentioned in Dr. Johnston's report, had somewhat of a diphtheritic appearance. A yellowish, thick, pseudo-membrane was found loosely attached to the septum of the nose, which, however, could be removed without bleeding. The larynx presented a similar condition, and the tonsils were swollen. The patient evidently got well three weeks after, before the membrane disappeared from the cords. The Klebs-Löffler bacillus was not found.

Dr. Wilkins referred to the difficulty, at