Abstract.

DIPHTHERIA.

Ewart. W., and Roderick, H. B.—*Extensive Mediastinal Emphysema in a Fatal Case of Laryngeal Diphtheria; with Remarks on the Early and the Late Variety of Emphysema observed in the Case after Tracheotomy.* "Lancet," December 30, 1899.

The following case is a striking illustration of a complication to which diphtheria of the larynx and trachea is liable in spite of tracheotomy and of antitoxin, and the fatality of which is probably attributable to the cardiac and pulmonary embarrassment set up by the increasing distension of the areolar tissue of the anterior and posterior mediastina and of the root of the lungs.

The patient was a child, aged five, who was admitted for threatening suffocation, and tracheotomy had to be performed within twelve hours. Four thousand units of antitoxin were injected immediately after the operation. Next day emphysema began to develop; this increased; membrane was coughed up, and the patient died within three days. There is no mention of the diphtheria bacillus being found.

Necropsy.—The post-mortem appearances twenty-four hours after death were as follows: There was great subcutaneous emphysema of the neck, face, and eyelids, the aspect being very similar to that met with in acute renal dropsy. Neither fluid nor adhesion was found in the pleural cavities. The lungs showed localized patches of collapse. There was great emphysematous swelling of the loose tissue in the anterior and posterior mediastina and about the roots of both lungs. This extended up around the trachea, but owing to the density of the tissues was not so considerable. The trachea showed a tracheotomy wound with sloughy edges and pus in the tube. The true and false vocal cords and the under surface of the epiglottis were abraded, and small shreds of a membrane-like substance were recognisable about the epiglottis. The tonsils were practically normal, and the soft palate was merely œdematous.

Remarks.—We are reminded by this case that after the relief of a membranous obstruction of the larynx by tracheotomy a membranous tracheitis may still remain, and may be latent for a while, and that it is important to frame our treatment from the first in all cases with a view to this possible contingency. The existence of a false membrane lining the trachea and bronchi was not suspected until its detachment led to a suffocative attack; and after the operation the air entry was so good that the precaution of introducing creasoted oil into the trachea immediately after the tracheotomy and every two hours subsequently was not adopted until it was too late for it to be of any service. The case also affords an instructive demonstration of the mode of production of the two varieties of subcutaneous and mediastinal emphysema. That which was immediately induced by the tracheotomy is well known to be a frequent complication of that operation. The other form of emphysema, which is less common after tracheotomy,* is more

* Dr. J. K. Fowler ("The Diseases of the Lungs," by Fowler and Godlee, 1898, pp. 181, 182) gives several cases which may include, besides a case in which tracheotomy had not been performed, instances of this non-traumatic variety.

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likely to occur at a later stage, when the distension of some of the pulmonary alveoli under stress of bronchiolar obstruction has gradually reached bursting-point. More distinctive than this relative lateness, which is not an invariable feature, are the suddenness and the rapidity of the development of the swelling after expiratory strain—in this case that of violent and prolonged coughing—which contrasts with the more gradual air-infiltration of the inspiratory form of emphysema.

In the absence of any known means of relieving its results or of checking its progress, a recognition of this serious complication of diphtheria is a guide to prognosis rather than to treatment. The leak of air in this form of emphysema is beyond the reach of any local measures. An obvious indication would be to allay the tendency to cough, but in carrying this out too completely we might deprive the patients of the only means of clearing the tubes of their obstruction by diphtheritic products.

The continuous inhalation of oxygen through the tracheotomy-tube, inasmuch as it favours a diminution of the respiratory efforts and a relative apnœa, would seem to be the most appropriate form of respiratory treatment. *StClair Thomson.*

REVIEW.

Ballance, Charles A.—*On Certain Affections of the Ear: Observations on the Recognition of Aural Diseases in Medical Practice.* In Vol. VII. of "A System of Medicine," edited by Thomas Clifford Allbutt. Macmillan and Co.: London, 1899.

Under this modest heading Mr. Ballance has contributed to the "System of Medicine" one of the most interesting and objective studies of various intracranial complications of ear disease which is to be met with. The substance of it was read by him in a paper before the British Laryngological and Otological Association, but it was not afterwards republished.

He states, in the first instance, the question as to whether, in the occurrence of a group of symptoms, such as vertigo, nystagmus, optic neuritis, vomiting or drowsiness, these arise or not from disease of the ear. The answer to such a question is the main *raison d'être* of the present paper. He then takes in order the *symptoms commonly induced by disease of the auditory apparatus*—deafness, tinnitus, vertigo, pain and facial palsy. With regard to *deafness*, he shortly enumerates the various conditions from which it may arise, and narrates two interesting cases of hysterical deafness. He makes the definite statement that "deaf patients who hear better in a noise are incurable," which may not be categorically refuted, but it must be remembered that they are often susceptible of very considerable improvement. The paragraph on *tinnitus* is very suggestive, though the reviewer thinks that the subject of pulsating tinnitus would have been worthy of some special remarks. *Vertigo*, as a more fatal symptom, comes nearer the main object of the paper, and he truly points out that it is important

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