CHAPTER XV.

ŒDEMA GLOTTIDIS.

In this affection there is an exudation of serum, underneath the mucous membrane lining the upper portion of the larynx. Above the vocal cords this membrane is loosely attached to the underlying structures, and is more liable than other parts of the organ to be the seat of serous exudation.

The greatest amount of œdema will be found in the aryteno-epiglottidean folds, situated at the sides of the superior aperture of the larynx, and at the base of the epiglottis. The aryteno-epiglottidean folds are reduplications of mucous membrane which loosely cover the cuneiform cartilages. Large, irregular pouches, which are here developed by the infiltration of serum, hang over the laryngeal aperture. These bags are forced in with each inspiration, making the opening still smaller, and seriously obstructing the ingress of air.

Œdema Glottidis occurs more frequently in adults than in children; the reasons for this are—1. That in early life the mucous membrane of the larynx adheres more intimately to the adjacent tissues. An exudation of any kind from the blood-vessels would therefore appear on the free surface of the membrane, and not on its attached portion; 2. The

diseases which occasion œdema are more common in advanced life than in youth.

The affection depends on conditions which give rise to exudations of serum in other parts of the body, such as obstructions to the circulation; inflammations, lack of tonicity in the vascular walls, or a watery condition of the blood. It is not unusual during the progress of all chronic kidney-diseases, erysipelas, small-pox, continued fevers, etc. It is in most cases an attendant of acute and chronic inflammation of the larynx; it may arise, however, as an independent affection. When it proceeds from inflammation, Virchow applies to it the term collateral œdema. The inflammatory *stasis* offers an obstruction to the circulation in the diseased part, increases the pressure in the blood-vessels, so that the watery portions exude in the areolar tissue. Exceptionally, it has been known to occur in thoracic aneurism, and in quinsy sore-throat, and pharyngitis from extension of the inflammation. Whether occurring alone, or in connection with local or constitutional diseases, the symptoms of œdema glottidis are distinctly marked. The patient complains of great difficulty in breathing, which seems to proceed from an obstruction located in the throat, and he coughs violently in order to eject it. If the epiglottis be involved to any extent, there will be pain in the act of swallowing. The difficult respiration rapidly increases. Extreme distress is apparent. The patient grasps the throat violently, in vain endeavors to relieve himself, and begs and prays for help. The respiration is hard and rasping in character. The voice is usually husky, but it may be clear if no inflammation is present. More difficulty is experienced during inspiration than with

expiration, owing to the fact that the pendulous bags of serum at the edge of the larynx are forced down by the current of air, and almost completely close up the canal.

The expiratory act will be found comparatively free. If laryngeal inflammation be present, both inspiration and expiration will be difficult. On examination of the throat the epiglottis may be seen enlarged and prominent, and, if the finger be carefully inserted, the puffy, œdematous swelling is readily felt. If the symptoms are not relieved, the patient soon dies asphyxiated. The duration of œdema glottidis is variable. It may destroy life in a few moments, or it may last for hours before a fatal termination.

Treatment.—There is no time for vacillation in these cases. Some measure for relief must be instituted without delay. Should the affection be complicated with laryngitis, and the dyspnœa not very urgent, a brisk cathartic may be given, and leeches may be applied to the top of the sternum, and at the sides of the neck. Leeches should never be applied directly to the larynx in inflammation, as a great deal of local œdema generally follows the bite.

In the majority of cases this kind of treatment will not avail much; operative measures have to be resorted to. Local scarification, as employed by Dr. Buck, of this city, is highly recommended. In performing this operation, a curved bistoury, covered almost to the point with adhesive plaster, is used. The forefinger of the left hand is passed down to the back of the tongue until the swelling is reached. The knife is then introduced, following the finger as a guide, and the bags of serum are punctured. Great care must be taken not to wound any part but the œdematous

stricture, or the flowing of blood into the larnyx may choke the patient before the œdema is removed.

Scarification is sometimes rendered extremely difficult, because of the efforts at vomiting induced by the irritation of the finger in the throat. In such cases perseverance ceases to be a virtue, and tracheotomy or laryngotomy should at once be performed (*see* pages 89, 90). Either of these operations may be performed in all serious cases.