tings last ten minutes, and are repeated once or twice each fortnight. In the intervals the usual daily washing is carried out. The results obtained by the author so far have been favourable. *A. B. Kelly.*

Tilley, Herbert.—*Some Diseases of the Antrum and their Treatment.* "The Clin. Journ.," April 14, 1897.

INTRANASAL disease accounts for more cases of antral suppuration than does dental disease. As frontal sinus disease is rare and most difficult to diagnose, always treat a suspected case as one of antral suppuration until you have proved it otherwise. To tell if the antrum contains pus, explore by means of Lichtwitz's trocar. Transillumination is "a pretty but expensive aid to diagnosis," and is open to many objections. As to treatment, if there is a carious tooth, open through alveolus; if not, make perforation in the canine fossa. Whichever of these you adopt, give it at least six months' trial before you try anything else, and even then hesitate, unless the patient is intolerant of a slight discharge and the worry of syringing. If something more must be done, enlarge alveolar opening with gouge or burr, curette the antrum, and pack with iodoform gauze. As a last resort, when the patient insists on "anything for a cure," you may make a large opening in the canine fossa, and a counter-opening in the inferior meatus; then currette and pack as before. The objections to the last method are—that it sometimes causes facial œdema and pain for many hours or even days; that it may leave a sunken cheek; that the aperture is difficult to keep open; and that the result is not always a success by any means. *Middlemass Hunt.*

LARYNX.

Kitchen, J. W. M.—*The Epiglottis a Pin Cushion.* "Med. Record," N.Y., April, 1897.

A COLOURED GIRL complained of having a pin in her throat, which was seen with its point embedded in the epiglottis and lying head downwards. No forceps could be made to grasp it, but a snare was passed round it, and by the aid of the finger it was removed. *K. Lake.*

Kuttner, A. (Berlin).—*Chorditis Vocalis Inferior Hypertrophica.* "Archiv für Laryngologie," Band V.

THE nature of this disease has remained, to a great extent, unexplained, owing to its rarity and the difficulty of keeping the patient under observation for years, and ultimately obtaining a *post-mortem* examination. The author has investigated the case described below.

A servant, aged twenty-eight, was brought to the hospital on account of great difficulty in breathing. She had had no previous throat trouble with the exception of occasional temporary hoarseness. Eight weeks before admission slight hoarseness had again set in, which did not pass off, however, under the usual home treatment. On the day preceding admission she contracted severe cold in the head and the hoarseness suddenly became very marked, and for the first time slight dyspnœa was experienced. Her condition rapidly became worse. When examined in the hospital her lips and cheeks were cyanotic, and the breathing was laboured and accompanied by stridor. The mucous membrane of the nose was red and swollen, that of the pharynx and entrance to the larynx normal. The lips of the vocal cords were freely movable and pale red. Two thick red

swellings appeared immediately beneath their free edges, and in direct continuity with them. On inspiration, these swellings came so closely together as almost to completely occlude the subglottic lumen. Sputum and urine were normal. No signs of tuberculosis or syphilis. Ice—internally and externally—quickly diminished the dyspnœa. Two days later, however, it suddenly became very severe, demanding immediate tracheotomy. After several days had elapsed, efforts were made to dilate the stenosis, but without success. The breathing and voice slowly improved, although the subglottic swellings diminished but slightly. Mercury and iodide of potassium produced no effect. Two months after the tracheotomy, laryngotomy was performed, and large wedge-shaped pieces were excised from the subglottic region. The operation was only temporarily successful, the condition three months later being very much as before. The patient then contracted pneumonia, which left her with a troublesome cough and profuse purulent expectoration. This, in the course of the next four weeks, without any rise of temperature, greatly reduced her strength; she then died with symptoms of cardiac failure.

At the *post-mortem* examination the pharynx and entrance to the larynx were found normal. Beneath the sinuses of Morgagni there was marked narrowing of the lumen of the larynx. A dense indurated mass, in which the edges of both vocal cords were imbedded, projected into the larynx. A cicatricial cord at the lower end of the thickening just described ran almost horizontally to the anterior wall of the larynx. Beneath this lay succulent greyish-red granulations and small cicatricial strands. The lumen gradually increased from the lower end of the cricoid cartilage downwards, and was normal at the beginning of the trachea.

The microscopic examination of the subglottic parts showed considerable increase of the mucous and submucous connective tissue extending deeply into the muscular layer. Amongst the newly found tissue, especially near the vessels and glands and beneath the epithelium, were small-celled infiltrations. At some points processes from the epithelial lining sank into the submucous connective tissue. These changes extended upwards to the true cords, and even the floors of the ventricles of Morgagni presented distinct evidences of active inflammation. In passing downwards, normal conditions were again met with at the beginning of the trachea. No indication of tuberculosis, scleroma, or other infective disease was observed.

Under the name of chorditis vocalis inferior hypertrophica a number of cases have been classed, which, apart from a temporary similarity in their clinical appearance, have nothing to do with one another. Some of these have been due to syphilis or tuberculosis, others to scleroma. Only by advances in pathological anatomy and bacteriology has a genuine form of chorditis vocalis inferior hypertrophica been isolated, corresponding to the condition described by Gerhardt.

Störk considers that the subglottic proliferations are always due to tuberculosis. Sokolowski and the author oppose this view. The origin of the affection is still a matter of dispute. A special bacillus has been sought in vain. Sokolowski thinks that hereditary syphilis may play a part in the causation; the author is of opinion, however, that this view has not sufficient clinical support. He mentions that the following features have been noted in almost all cases:—Onset marked by one or several attacks of hoarseness, generally attributed to catching cold; the hoarseness usually persisting a considerable time, and not passing off entirely.

The distinctive features of this disease, however, are its extraordinary clinical symptoms, localization, and rarity. In the course of an apparently harmless hoarseness, attacks of extreme dyspnœa set in, although there is no œdema at the entrance of the larynx. This is not so astonishing, however, when it is remembered that the disease is not of quite recent date. If subglottic thickenings are present, slight swelling would suffice to produce complete stenosis. This would occur

more readily in the subglottic region than at the glottis itself, for in the former the elastic network is absent, which, in the edges of the cords, forms a firm wall preventing broadening by inflammatory swelling.

This disease in its very pronounced form, as described by Gerhardt, is certainly rare, but in the less advanced stages it is by no means uncommon. To prove this we have only to examine larynges from persons who have suffered from chronic laryngitis and observe how frequently the subglottic tissue is thickened, presenting microscopically an undoubted increase of connective tissue.

The author, therefore, concludes that there is a genuine form of chorditis vocalis inferior hypertrophica which is independent of syphilis, tuberculosis, scleroma, and nasal disease. It results from one or more attacks of subacute laryngitis. The anatomical change consists in an increase of the mucous and submucous connective tissue, which is formed chiefly, but not exclusively, in the subglottic region. The epithelial layer also in the affected area often presents considerable changes. Slight degrees of the disease produce insignificant or no symptoms; more severe forms occasionally lead by inflammatory swelling to sudden and complete stenosis of the larynx. The prognosis in these cases is unfavourable, for even the most active measures—laryngotomy, with subsequent destruction of the affected parts—scarcely ever succeed in restoring a normal condition. *A. B. Kelly.*

Lazarus (Berlin).—*Abductor Paralysis in Gonorrhœa.* "Archiv für Laryngologie und Rhinologie," Band V.

A MAN, aged thirty-two, contracted gonorrhœa for the first time six weeks before coming under the author's observation. About ten days later he experienced pain successively in the right wrist, left elbow, both knees, and right ankle. After the pains had subsided, and the urethral discharge ceased, in consequence of treatment, pain on swallowing, cough, and difficulty in breathing set in. The dyspnœa rapidly increased, and four days after its onset, when a laryngeal examination was made, double abductor paralysis was found.

The following day (June 26) the patient came under the author's care. He was a well-built man; there was nothing in his family or past history of any importance. When first seen by the author he was scarcely able to move on account of the dyspnœa. He sat up in bed, the eyeballs being prominent and sclerotics injected. The nose, ears, lips, and extremities were purple and cold. The pupils reacted equally to light and accommodation. All the accessory muscles of respiration were called into play. Inspiration and expiration were accompanied by loud stridor. The voice was rough and hoarse. Owing to the shortness of breath he had to pause after every few words spoken. Respirations 32 to 36 in the minute. Constant, short, barking cough.

The pharynx and epiglottis were normal. The laryngeal mucous membrane was red; the false cords arched inwards and swollen, so that only a narrow strip of the vocal cords was visible. The arytenoid and interarytenoid region presented nothing abnormal. The vocal cords were adducted; the left, tensely stretched, occupied the middle line, while the right, running in a straight line, deviated slightly posteriorly, so that the glottis formed a very narrow right-angled cleft. No movement of the intralaryngeal parts could be detected with certainty during either respiration or phonation. Pressure on the laryngeal cartilage caused no pain. No indurated glands were found in the neck, cubital or inguinal regions.

Lungs and heart normal. Temperature 38·3. Pulse, small, regular, 136 in the minute. Marked retraction in the epigastrium with inspiration. Tendon reflexes normal. Urine normal in amount and contained neither sugar nor albumen; it gave, however, a distinct iodine reaction, and contained gonorrhœal threads. The skin presented no eruption or œdema. The sputum contained neither tubercle

bacilli nor gonococci; nor were the latter found in the mucus brushed from the larynx.

Morphia subcutaneously, ice bag to the neck, and bicarbonate of soda were prescribed.

Two days later (June 28th) the dyspnœa had increased considerably and the patient was occasionally slightly delirious. Painting the larynx with a twenty per cent. solution of cocaine produced more benefit than the introduction of bougies, which could be tolerated for only a few minutes. Tracheotomy was performed only when the patient had become asphyxiated and pulseless, and artificial respiration was afterwards necessary.

June 30th.—Patient much better. The right vocal cord could now be abducted slightly. July 2nd.—Patient still improving. Redness, swelling, and tenderness suddenly set in at the base of the right index finger without elevation of temperature. The glottis now gradually enlarged, and on July 12th the canula was removed. On July 28th swelling and inflammation again set in, in the left external malleolus, and passed off within two days. The patient's general health had improved greatly, and only slight roughness of his speech remained, when on August 28th the following laryngeal condition was found:—True and false cords thickened and somewhat red. During phonation there is still unsymmetrical movement of the cords, excursions of the left being less than those of the right. Two months later the movement of both cords was quite normal.

By excluding *seriatim* all the known causes of abductor paralysis he shows that its association with gonorrhœa in the above case was more than a coincidence. He explains the origin of the paralysis as follows:—During the course of the disease the vocal cords were red, dry, and thickened; in consequence of this chronic laryngitis the altered peripheral ends of the inferior laryngeal nerves offered less resistance to the invasion of the gonococci, and a neuritis resulted which led to paralysis of the abductors.

The almost total absence of pain and of acute inflammation of the mucous membrane exclude the other two possible causes of the paralysis—viz., ankylosis of the crico-arytenoid joint and perichondritis. *A. B. Kelly.*

Schadewaldt, O. (Berlin).—*On Laryngeal Vertigo (Ictus Laryngis). Sudden Death during an Attack.* "Archiv für Laryngologie und Rhinologie," Band V.

THE author has had seven cases of this affection under his care. The first is of special interest.

A gentleman consulted him in 1879 on account of hoarseness resulting from laryngitis. A cure was effected in two months. Fourteen years later the patient, now aged fifty-nine, returned, complaining of tickling in the larynx, troublesome cough, and difficulty in breathing on exertion. He appeared healthy, and the larynx was found normal. The cough was due to chronic bronchial catarrh. During violent paroxysms of coughing the face became bluish-red and the eyes prominent. Such attacks were especially frequent during meals.

The patient also mentioned that on several occasions he had become unconscious for a very short time, and had sometimes fallen during a fit of coughing. He had paid but little attention to the occurrence, however, as he felt quite well immediately afterwards. The author gives an account of an attack he witnessed. The patient had just finished supper and lit a cigar, the first whiff of which appeared to irritate the throat, for he coughed moderately, his face became bluish, and he immediately lost consciousness. The features were rigid but quite com-

posed, the eyes open and staring; he breathed quietly and maintained his seat without letting the head sink. After five seconds at the most he came to himself, and looked around smiling as if awaking from a refreshing sleep. He was quite himself immediately, and in a few minutes had forgotten the occurrence. Under climatic and dietetic treatment the cough was removed, and the attacks of laryngeal vertigo ceased for at least a year. Quite unexpectedly, however, he had an attack one evening similar to that above described. The following day, while conversing, the usual cough returned, he became unconscious, fell, and died in a moment.

There are only about fifty cases of laryngeal vertigo on record, the small number being probably due to the fact that persons suffering from this affection almost always seek medical advice solely on account of the subjective sensations in the upper air passages, and make no mention of the attacks of giddiness.

Laryngeal vertigo is merely a symptom. It is distinguished from fainting by occurring almost invariably in men, by its sudden onset, and by the patient's face becoming congested; and from spasm of the glottis, by the absence of any alarming symptom indicating long-continued closure of the glottis. Further, it has nothing to do with tabes, for as a rule it occurs without this condition being present, although the latter may be accompanied by laryngeal crises which assume the appearance of laryngeal vertigo. It is independent also of epilepsy; not one of the author's patients was an epileptic. Convulsions and subsequent exhaustion were absent.

The author explains the mechanism of the attacks as follows:—The irritation of the superior laryngeal passes to the expiratory centre, and excites the fits of coughing; at the same time it influences the inhibitory cardiac centre and causes cessation of the heart's action and consequent cerebral anæmia and loss of consciousness.

A certain pathological state must exist before these attacks can take place. Garel and Collet regard changes in the vessels due to age and arthritic conditions as the predisposing cause. The author attaches importance to alcoholism, all of his patients but one having been heavy drinkers.

The prognosis hitherto has been favourable, perhaps because the cases have not been sufficiently long observed. A cure is not to be looked for from symptomatic treatment, but rather by controlling the predisposing fundamental condition.

A. B. Kelly.

ŒSOPHAGUS.

Delatour, H. B.—*Removal of Foreign Body from the Œsophagus by Œsophageal Forceps, guided by the Aid of the Fluoroscope.* "Med. Record," N.Y., May 1, 1897.

On February 13th a boy of four years was brought, with a history of having swallowed an iron washer on the 9th, and inability to swallow solids and only a little fluid since. It was located by auscultation during swallowing to the level of the fourth dorsal vertebra. A skiagraph was taken, and shows the washer very distinctly. The ease with which it was visible with the fluoroscope determined the writer to attempt its removal with its aid. Accordingly the following day the boy was chloroformed, and after two attempts it was withdrawn. The total time occupied was twenty minutes.

R. Lake.