

ticulars, is reported by Taylor'. In Taylor's case, the tumor was mistaken for a post-pharyngeal abscess and incised. It passed down so far behind and projected so far on each side of the larynx as to cause dysphagia and dyspnea from pressure on the larynx. Tracheotomy gave no relief. In the case I have described the patient suffered from dyspnea, although not from pressure upon the larynx but from partial obstruction of the larynx, and also of the pharynx by the growth interfering with the ingress of air.

DIPHTHERITIC CRICOID PERICHONDRITIS AND NECROSIS.

Read in the Section on Laryngology and Otology, at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5-8, 1894.

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The idiopathic inflammation of the laryngeal cartilages is considered a rare affection by the greater part of the authors; who instead affirm that the laryngeal perichondritis and chondritis, as manifestations of certain constitutional illnesses, pocken, typhoid fever, syphilis, lupus, cancer, tuberculosis and mercurial intoxication, are sicknesses which are observed frequently. I think that the idiopathic perichondritis appears many or more times than the symptomatic, and if we do not take notice of it with more attention, it is because it terminates generally by resolution, and passes without being noticed, and we believe it to be an inflammation limited to the mucous membrane, and to the immediately sub-mucous tissue, which penetrates into the same cartilage. For which it is called intense inflammation of the arytenoid mucous membrane, that which not only invades the immediately submucous tissue, but that which reaches the crico-arytenoid articulation, beginning in many cases the phlogosis by the same articular surfaces; after that it goes on to attack the mucous membrane, this being the consecutive inflammation, and the arthritis the primitive one.

Among the causes of the consecutive perichondritis only two authors notice the diphtheria, Gottstein and Bosworth; the first saying, speaking from the etiology of the perichondritis, that this "can appear as joined to an ulcerative process already existent of a diphtheritic character; but without stating if his affirmation is purely rational or deducted from the experience; and the second cites the diphtheria as a cause of the inflammation of the laryngeal cartilages, because one of the 33 cases of perichondritis observed by him was produced by the diphtheria. Volume II. of the *Journal of Laryngology*, pages 366 and 367 contains an extract of a case published by Jacoborvitsch, from St. Petersburg, in the *Archives für Kinderheilk.*, Vol. 10, No. 1: "It was a child a year and three months old, which suffered the scarlate. The diphtheria of the throat appeared several weeks after, and the diphtheritic membranes persisted on the tonsils and upon the pharyngeal vault during two months. There was also increasing stenotic respiration. Tracheotomy was performed, and the child died. In the necropsy was discovered perichondritis of the cricoid. The pharyngeal mucous membrane was covered with pus and membranes."

¹ Lancet, London, 1876, Vol. II, p. 685.

The *Internationales Centralblatt für Laryngologie*, published at Berlin from 1889 till 1890, page 189, copies from the *British Medical Journal*, Sept. 22, 1888, a case of the necrotic perichondritis observed in a pig by Proctor S. Hutchinson, of London: "The animal suffered from symptoms, which resembled those of the croup. It was not founded on motives to diagnose the acute illness. The animal died, and necropsy was performed. It was found with an inflammation, which was extended around the cricoid cartilage with partial necrosis of the same. A very great part of this cartilage fell down, and only remained a little part of the lower and anterior portion. The suppuration was insignificant. The necrosed piece was buried in a tissue of soft granulations. At last existed a general edema of the larynx, which explained the dyspnea."

This is all that I could find in the medical literature, which says anything with regard to the appearance of laryngeal perichondritis produced by the diphtheria; not even Knight, (who, in the eighth annual meeting of the American Laryngological Association, held at Philadelphia in May, 1886, with motive of a case of perichondritis, studied the causes of this affection in a splendid work) mentions diphtheria.

I have recently had occasion of observing the fatal consequences of this complication of diphtheria (which I think is not very rare) and by it have been many deaths attributed to other different causes. But before making more reflections, I will refer to the history of an interesting case for more than one reason:

February 4, 1894, I was called in consultation by the well-known physician, Reyero, on a child of 23 months, whom he found with all the symptoms of diphtheritic croup, and he recommended me to take the necessary instruments in case of necessity of performing the intubation, as he supposed.

At 8 o'clock in the evening we assembled at the house of the little invalid, who six or eight days before had shown symptoms of the bronchial catarrh, according to the statement of the parents; who had not been alarmed and had not called in the physician until that same afternoon, because they did not think it was fever, and notwithstanding that he did not like to eat, because he felt a pain in swallowing, coughed frequently, was hoarse and was unable to get up, but breathed well, they had confined themselves to have him protected from the cold, poulticed in the neck, and giving him some warm milk. They gave him also two emetics of ipecacuanha, one every second day; the latter one that same day; and notwithstanding the two operated well, as the illness not only remained, but increased until the difficulty of breathing inspired the parents with some dread, they resolved to call the physician.

The state in which Dr. Reyero found the little invalid five hours before the consultation, was a little more or less the same in which we found him when we joined for the consultation, and believing the child to be in a very grave condition, Dr. Reyero had the consultation immediately. I noticed that it was a larger child than its age seemed to warrant, and seemingly vigorous. He slept in his mother's arms, with difficulty breathing noisily in the inspiration and in the expiration; the forehead was covered with a cold and viscous sweat, a livid line existed around the eyes and the mouth; the cheeks were very high

colored, but the ears, the lower part of the face and the nose were pale; the wings of these latter moved when he breathed; the supra and infra-clavicular, and supra-external fossæ, and the epigastrium fell down profoundly during the inspiration; the sciani, sterno-cleido-mastoides, pectoral and abdominal muscles concurred with their contractions to introduce the greatest possible quantity of air in the lungs. The respiration was shallow and hasty (38 every minute); the pulse was feeble and quick (112 every minute); the skin of the extremities was cold; the nails were blue, and the axillar temperature arrived to 38.9 degrees. Examining the mouth, appeared a white and large false membrane, which covered the soft palate, the uvula, the two pillars and the two tonsils. The rest of the mucous membrane of the palate and the pharynx was very red and friable, and to the least light friction bled. From the excoriated nose flowed a bloody ichor, but the false membranes were not seen there. At auscultation we noted a noise of large bubbles as much in the anterior part as in the posterior part of the chest. Our diagnosis was pharyngeal and laryngeal diphtheria in the asphyxia period, and complicated with intense and extensive bronchitis.

We made a very dangerous prognostic, not only by the advanced and extensive suffering, but because the grippe was existing in Seville at that time. We feared that the bronchial catarrh would assume an infective character, if by chance it had not yet assumed it. Notwithstanding, we agreed that it was necessary to perform the intubation immediately, in order to free the child from the imminent asphyxia; to separate the false membrane with a ball of very firm sterilized cotton; to irrigate the throat and the nose with a solution of carbolic acid (1 to 100); to touch the sores of the diphtheritic plaques with another ball of sterilized cotton moistened in a solution of the absolute phenol in the sulpho-vicinat of soda (20 to 100); these three latter were to be done every hour. The following mixture:

R. Hydrargyri bichlorid .01 gram.
Tinct. ferri chloridi, 8 cc.,
Potassi chloratis, 4 gram.
Glycer., 60 cc.,
Aqua, 120 cc.,

was given, a teaspoonful every hour, and we advised that nourishment should be often taken, taking care to place the invalid with his head downwards, whenever he took any fluid. Moreover the bed was surrounded with sheets, making like a tent, and burning within the sheet two grams of calomelanos every four hours.

All was performed as we ordered. The intubation was made very easily and promptly, putting the tube, No. 2, of the scale of O'Dwyer, corresponding to the two years which the child had. But at the first fit of coughing after having placed the tube, this was expelled with force and to a great distance; which showed me the necessity of placing another and larger tube, and without difficulty I put that of the No. 3, and the little invalid remained breathing, coughing and discharging mucosities by the tube with great facility, and without showing any grievous symptoms.

The first night he was very agitated, the tracheal râle was heard outside the room, and the temperature was raised to 39.8 degrees. The succeeding days at 9 o'clock in the morning the fever went down suffi-

ciently, for it descended to 38 degrees, but it rose again during the night, the child did not wish to eat, it was sorrowful and did not speak. Notwithstanding, the respiration was performed easily, and the false membranes were every time reproduced with less vigor.

On the sixth day I determined to take the tube away, that I had hesitated to take away before, watching the bulk of the introduced instrument. The child passed the day better than the anterior days; he had sat down at table with his parents and had wished to eat what he saw, though he suffered much in swallowing it; the diphtheritic sores of the throat had totally disappeared, but the respiration (a condition that should not be forgotten, by what happened after) was noisy, notwithstanding that it was performed easily, as the tracheal rattle and the axillar temperature was raised to 38.7 degrees. The extraction of the tube was performed quickly and well, but in the moment that it was taken away from the larynx, and when I believed that by its friction against the posterior laryngeal wall, the violent fits of cough commenced which expelled the materials lodged in the trachea, I observed with great disgust that they were carried down by the current of inspired air, and afterward the child began to suffer the peculiar paroxysm, precursor to the asphyxia. I expected that this dyspnea would disappear by degrees, as I have had occasion to observe it in other operated persons, and examined the tube, which was completely obstructed, and saw a piece of the macerated false membrane formed a cap or a capsule in the inferior extremity of the instrument. I introduced the obturator of the tube and there came out a dense mass in shape of a cylinder, a veritable mold of the lumen of the tube, composed of detritus of false membrane, by semi-coagulated mucus and probably by some food. I called my learned colleague's attention to all, and he asked me from what time this material had filled the tube. I could not tell him; by the consistency of the plug, which did not break when it fell to the floor, I ventured to say that the tube had been obstructed from twenty-four to forty-eight hours.

When I was occupied in these examinations the state of the child grew rapidly worse. I observed it by the noise which the air made in passing the glottis, and my friend Reyero advised me of it, at first with tranquillity and the second time with exigency, because the little fellow was suffocating. I was already trying to place a thread in the tube in order to repeat the intubation, but the moisture of the instrument and of my hands made it very difficult to slip the delicate thread of silk in the small hole of the tube. I could not do it. Reyero was alarmed, and with reason, because the face of the child was violet, and he told me again of the danger; and for that reason I left the silk, because there was not a moment to lose, and, placing my confidence in God, without silk and without gag, I performed the intubation, doing it with great facility and at the first attempt, and beginning immediately the artificial respiration; because the child could not get breath and all its skin was covered with a cold and viscous perspiration, and the muscles completely relaxed. We obtained in three or four minutes of the artificial respiration the natural one well restored. The child slept after the danger which he had run, and we were smiling after having been in such great anxiety.

We attributed what happened to the aggregation upon the wing of the trachea of layers of the false membranes and of a great quantity of semi-concrete muco-pus, and we decided to leave the tube for two days more, holding same medication, but stopping the painting with the solution of phenol, because the diphtheritic sores had disappeared.

Thirty-eight hours were passed without any accident, the temperature had been normal since the following day; the same in the morning and evening. The child wished to eat, but the deglutition was always painful, the respiration was accomplished without noise and suddenly at a fit of coughing the tube was expelled. I was called and went with the haste which was natural after what happened two days before, and when I arrived at the house of the invalid, which is very far from mine, I had the consolation of finding the child respiring, though with great pain. I was surprised that the tube was expelled so soon, because it was much larger than usually used in a child of that age. The dyspnea reappeared the moment the tube was extracted, and increased until nearly asphyxiated, although the lumen of the instrument was clean and we could not hear the tracheal rattle, but we could hear the whistle which the air made in the glottis, as much in the inspiration as in the expiration. I performed intubation for the third or fourth time, and all remained as if nothing had happened; but I was very displeased, because I thought that it was caused by a post-diphtheritic paralysis of the posterior crico-arytenoid muscles, and so I told Dr. Reyero, who coincided with me in the diagnosis and also in the prognosis; we then left the house sorrowfully thinking of the paralysis in such little muscles where perhaps it had never been before. Knowing how rebellious and long are these fits of paralysis, we did not dare to say how long we should have to leave the tube in the larynx, and the inconveniences that were present by the paralyzation of the dilating muscles of the glottis. Notwithstanding, as that day the dyspnea had not been as early and as severe as two days before, I hoped that the tube inciting the part would determine the contraction of the postici muscles. In thinking of these things we arranged for a new consultation in two days, in order to take away the tube, besides he did not expel it as before, and resolving to carry one of the shortest tubes and of a great diameter to substitute for that placed, in case it were necessary.

On these two days nothing happened worthy of mention, and to the disgust of the parents I took away the tube; and the scene of the latter day was repeated. I then placed the third tube of the short ones, and left the child all right.

Two more days were passed with tranquillity; the only unpleasant phenomenon was the pain in the larynx sustained, in my opinion, by the long permanency of the tube in the larynx; and so great was my desire of taking away the instrument, that I extracted it in the hope of finishing my task that evening; but if there was a moment in which it seemed that the respiration was performed easily, that passed, and the peculiar respiratory whistle was repeated. With disgust I listened to it; but I did not wish to repeat the operation. Reyero looked at me and said: "I do not wish the child to remain like this; I have very much to do and can not lose the time. I beg you to repeat the intubation." He was right, and I obeyed.

The child resisted all our maneuvers; thus as soon as he saw the gag he closed the teeth, and there was no human force that could separate his jaws; we vexed and annoyed him every time that the gag was applied. On this occasion the maneuver was something more tedious than the anterior ones; and a tooth was knocked out; the little invalid shook the head in the moment of nausea, so notwithstanding our efforts to subdue him I was only able to place the gag in an imperfect manner. So I performed; but when I put my finger upon the head of the tube in order to withdraw the obturator, I observed that the larynx fell down until I could not touch it with my finger. I stopped in suspense. What had happened? Where had the tube fallen down? That tube of which the diameter was triple, that which corresponded to the age of the child? To the subglottic part? To the trachea? Impossible, because the shortest tube placed by Brothers in the larynx of the dead body of a child could not be made to go down to the trachea, far less could this large tube fall down so small a larynx and with so light an effort. Guided by this reasoning I took away the thread. Notwithstanding so nervous a person, as I, can not rest under the power of the imagination without suffering dreadfully, and for that reason I decided to take away the tube. I introduced the extractor and putting it well down I managed to seize the tube and take it away. I had nothing to dread, but it was necessary to repeat the operation, and as the child had the mouth open, and recollecting what I had done a few days before in very exacting circumstances, I wished to repeat the operation; that is, I wished to introduce the tube without putting in it the thread of silk; but the tube, large and short, was separated from the obturator, and before I could seize it, the tube fell down the esophagus lengthwise, and penetrated into the stomach. A similar contrariety bothered me very much, though I knew already that the tube would sooner or later be expelled by the ano, and in the same instant I seized another tube of the largest and shortest, put in it the silk, and placed it in the larynx. The tube was larger than that which had been slipped by the esophagus, and, notwithstanding, I felt it slip under my finger, just as the other one had done when it fell down, but yet I did not trouble myself, because I knew that it was upon the vocal cords; notwithstanding I was not able to explain what happened; for the paralysis of the abductor muscles was not sufficient reason for this rare phenomenon. That happened February 23, and we agreed that the parents should carry the little invalid to my home on the 26th, in order to begin the application of electricity to the paralyzed muscles.

By misfortune, I woke on the 25th with a great superciliary neuralgia, which obliged me to remain in bed. On the evening of this day the child expelled the latter tube, so extraordinary large for its age, and the father called me in order to help his son, who was suffocating. As I could not rise from the bed, so I besought my dear disciple and expert laryngologist, Gallegos, to go and do what he believed necessary for the child.

My friend went instantly, found the child in asphyxia, and introduced the tube which had been expelled two hours before. In introducing it he observed what I had observed already; that is, that the tube under the pressure of the finger slipped by

the larynx to a place where it could not be touched by the finger. That surprised him as it had surprised me; but he had not time to pre-occupy himself, because he had scarcely taken away the thread than a fit of the cough expelled the tube out of the larynx. This scene was repeated six times; on the third, after the issue of the tube was a moment of imminent asphyxia; a whitish body appeared between the teeth in the middle of thick and sanguineous mucosities, which Gallegos seized, believing that it was a tooth, as the anterior, separated. When he had it in his hand he saw that it was not a tooth, but a white opaline substance, from two millimeters of thickness by ten and seven of length and nine of breadth; irregular, concave on one of its surfaces, convex on the other; with two even and round borders, one superior and the other inferior, and with two dentated extremities. He considered what it might be. At first he thought it was a piece of epiglottis, but when he examined this with the finger, on making a new intubation, he observed that it was intact. He thought then if it might be a substance thrown from the stomach, but none of the food that the child had taken could contain anything of that size and form. Believing that it was gristle he wrapped it carefully in a paper and continued attending to the patient. Tired and weary because the tube was always thrown out by the cough which the extraction of the thread caused, he decided to leave it, reminding the mother not to loosen the thread at all during the night, so that the child could not pull it with his hands and extract the tube.

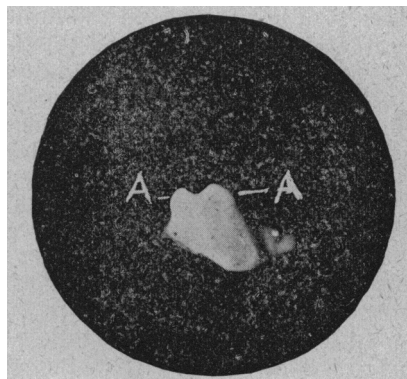
On the following morning Gallegos went to see the patient and found that he could take the thread without the tube being expelled, and he came to tell me all that had passed and to give me the tube which had fallen into the stomach, and that before twenty-four hours it had been expelled by the ano. Also gave me the strange body taken between the teeth on the preceding night. I staid in bed suffering from neuralgia; heard the relation of my friend, seized that which he gave me, and looked at it carefully. It was already dry, and was transparent and hard, rolled upon one of its surfaces, and had all the appearance of a large psoriatic scale. "I do not know what it is," said I to him.

"Nor I either," he replied, "but I believe that it is a piece of gristle." "It does not appear to be so," I answered; "it resembles more a dried false membrane, or a piece of loosened and dried vocal cord." "You did not see it when it was fresh; then it was like a necrosed cartilage, and by its breadth I believed that it was the epiglottis, but then I have touched it with my finger, and observed that it was complete." "If it is cartilage, as you believe, it will be a piece of the cricoid gristle by its form; but leave it, for I can not speak. Please put it on my cabinet table." Observing the bad state in which I was Gallegos departed; and two hours after the parents of the child arrived at my consultation room with the little patient. He had expelled the tube; and I told them to take him to Gallegos, who performed the intubation, but three hours after another fit of coughing threw out the tube. The child remained without it all that afternoon and all the following night.

In the morning they called me, but as the neuralgia did not permit me to go, and knowing that the child was choking, that he could not swallow more than

fluids, and that his general state had grown much worse since I had last seen him, I advised them to perform tracheotomy; for it was seen that the paralysis of the vocal cords was so great that they wanted the necessary tension to retain the tube. I indicated this to the parents the day before, but they did not wish to have a bloody operation performed; yet at last, knowing that if the trachea was not cut their son would die, they asked of me the cannule of tracheotomy corresponding to the age of the child, and with it they went to call Revero. Unfortunately, he could not go to the child until 12 o'clock; half an hour before this, died, asphyxiated, that fine child who during fifteen days had passed through so many vicissitudes.

As soon as I was relieved from the neuralgia, I begged of my dear friend, the illustrious Dr. Roquero, Professor of Histology in the School of Medicine of Seville, to make a microscopic examination of the body held by Gallegos. Roquero then immersed it in pure distilled water, and examined with the microscope a section, and saw that it was a hyaline cartilage, and that the piece would correspond to more than the posterior half of the cricoid cartilage. Effectually, after having soaked it in the water, the figure shown in the annexed photograph appeared clearly. The surfaces A and A correspond to the



articular facets upon which the arytenoid cartilages turn round; in the middle of the plate one can distinguish the projecting line that shows the union of the two halves of the seat of the ring, and in the sides you can see some rugosities indicative of the insertions of the posterior crico-arytenoid muscles. This anatomic piece I conserve in a solution of hydrate of chloral; for it is equivalent to an necropsy, because it explains the phenomena observed during life, and puts out of doubt the existence of diphtheritic laryngeal perichondritis and necrosis.

If these affections are not quoted as frequently as they ought to be, without doubt we must impute that to people not thinking about more than the inflammation of the mucous membrane and the submucous tissue; as if further than that there is some insurmountable barrier to the simple inflammatory or specific process. As there is no such barrier, it will be permitted to suppose that in many cases the diphtheritic process advances to the perichondrium, and into the same cartilage; and if we do not observe its greater frequency the expulsion of the necrosed pieces, as in the present case, it is due to death happening before there was time for the cartilage to be carious in all its thickness, or that either a large or small sequestre could come out. Neither is it risky

to suppose that there have been cases of expulsion of the cartilaginous pieces, but unknown or not seen by the assistant persons.

I have said that the piece taken from our patient is worth as much as an autopsy or more. It explains to me why the child was choked as soon as he expelled the tube. I imputed it the first time to the mucosities and detritus of the false membranes accumulated upon the spur of the trachea; the second time to a paralysis of the dilator muscles of the glottis of diphtheritic nature. This second time I was right about the paralysis, but I was wrong in its cause. The perichondritis must have appeared in those first eight days in which the child did not have the necessary medical attendance as proven by the intense dysphagia manifested by the little patient. In the moment of the first operation the cartilage must have been immersed in a bag of pus, formed under the perichondrium, the lateral parts of which were probably grown carious. During the first six days of the permanence of the tube, the perichondrium and cartilage stopped ulcerating and then the crico-arytenoid posterior muscles were lost in a great part of its extension. For this reason the vocal cords united as soon as the tube was taken away, and the air whistled in passing through, as much in the inspiration as in the expiration. For this reason the first tube, larger than was convenient for a child of that age was expelled in a fit of coughing, and the same happened with the second and third tube, and this fell down in the larynx, when it was pressed by the finger, because the larynx lacked resistance, the soft parts and the hard parts had lost the base of their support for it is well known that the cricoid cartilage is the fundamental cartilage of the larynx, and that all other parts of this organ rest upon it. When so considerable a part of the cricoid ring gives way as gave way in this case, all the posterior laryngeal wall is put out of its place, the soft tissues are flattened or are united with those of the anterior part of same organ, the arytenoid cartilages necessarily sink and fall in the laryngeal vestibule, and the thyroid cartilage remains without control, through failure of its inferior adhesions.

But the case also obliges us to think that it is possible that one of the ordinary tubes of O'Dwyer can descend in the trachea; for Doctor Brothers, after his experiments, which prove the impossibility of the tube falling down by its own weight in the trachea, tells us that what principally impedes this descent is the enlargement or prominence of the cricoid cartilage in the anterior part of the larynx. If that is so, then if a considerable part of the ring is separated, the retentive enlargement is wanting, and as the soft tissues are elastic, it is possible that the tube may penetrate to the tracheal conduit. If in this child this did not happen, it must be without doubt that when the sequestrum lost its relations with the anterior part of the ring, the diameter of the tube was too large. I, a decided partisan of the method of O'Dwyer, show this contrariety, which is neither little nor insignificant, because the fall of the tube in the trachea would oblige the operator to perform tracheotomy immediately in order to extract the strange body; which would place the physician who had already told the parents of the little patient that he knew a proceeding that would free the child from asphyxia without cutting, in a very delicate situation. Until now I never thought that I should

find myself in such a difficulty; for the future I shall have to dread it, although it may be rare, and I shall so tell the family.

But if this case has given me a motive for fear, at the same time it has given me another motive for confidence. All the authors, when writing about the serious accidents of intubation tell us about the obstruction of the tube by the false membranes or by other cause. In this child I found the tube completely obstructed when I took it away the first time, and notwithstanding the child breathed perfectly; and more, the dyspnea began as soon as I extracted the tube. How do you explain the phenomenon? I believe it very easy. Place two thin bands of caoutchouc of five millimeters in breadth by twenty in length in form of ribbons upon a tube, so that they are touched by its borders, but are not very tight. Between two bands is placed a little tube of O'Dwyer, and it will be seen that the ribbons remain separated two or three millimeters in front and behind the instrument. What more suffices for the respiration to be made with relative ease? A similar thing happens in the larynx. The vocal cords are relaxed as in the present case by the loss of resistance of its posterior insertions.

Finally, this history also teaches us that we must never try to extract a tube without having another prepared to introduce, if it were necessary, as happened the first time I took away the tube. If, then, I have the misfortune, which I had in my latter intubation, that the tube gets out from the obturator, and instead of falling into the larynx, it falls into the esophagus, the child would be asphyxiated with all certainty. I do not know if any one of those who have written upon intubation of the larynx have improved upon this precept; if none have previously indicated it, I now show it.

RETRO-PHARYNGEAL LYMPHADENITIS.

Read in the Section on Laryngology and Otology, at the Forty-fifth Annual Meeting of the American Medical Association, held in San Francisco, June 5-8, 1894.

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It is now well established that retro-pharyngeal abscess arises ordinarily not in caries of the cervical vertebræ, but in the inflammation of the lymphatic glands which are imbedded in the posterior pharyngeal wall. Of 204 cases analyzed, Bokai placed 187 in this class, in contra-distinction to only 7 cases, secondary to caries of the vertebræ. Children are especially prone to inflammations of the lymphatic system. Cervical lymphadenitis is common among them. Frequently it is tuberculous, but often it is not, and usually the acute variety whether suppurative or non-suppurative, results from infection by a previously existing tonsillitis. So also with retro-pharyngeal abscess; it is most reasonable to regard it as a secondary infection of the pharyngeal lymphatics from inflammation of exposed and associated muco-lymphoid glands, like the faucial and nasopharyngeal tonsils. In rare instances the source of infection may be rhinitis communicated through the nasal lymph channels or, still more rarely, a suppurative otitis; but as previously mentioned, follicu-