

Case 16.—March 29, 1893. Dr. Fischer's patient. Female, 3½ years old. Forty-eight hours since onset of disease and twenty-four hours since laryngeal symptoms developed. Made the intubation without difficulty at 9 A.M. Great dyspnea was present and some cyanosis. The relief was instantaneous. Coughed up considerable mucus, the tongue was coated and the tonsils had considerable membranous deposit. Child went to sleep immediately after the operation.

March 30, A.M. Temperature 100, pulse 130, respiration 24; coughed up some mucus. Dr. Fischer is alarmed at the character of the pulse, which is feeble; otherwise the child is doing fairly well, taking considerable wine and milk. April 2. Child had done well since; respiration 18 or 20; pulse 95, but feeble; temperature from 99 to 100; is troubled by much coughing; takes fluid nourishment fairly well, also wine and brandy and ice-cream. April 4. The child has been very comfortable, the pulse ranging from 95 to 120 and full, the temperature 99 to 99½; the tongue and tonsil have cleared and the child has taken a fair quantity of liquid nourishment and stimulants; there has been but little difficulty with the feeding. The tube was removed by the Cheatham method without difficulty, and the indications pointed to a speedy recovery, the respirations being free and even, and the condition favorable; convalesced rapidly; she wore the tube six days before removed.

Case 17.—April 6, 1893. Male, age 2 years 7 months. Dr. Stewart's patient. Five days since onset; has only had difficulty of breathing about eighteen hours; had great cyanosis and dyspnea. Intubation was made and there seemed to be stoppage at head of tube; could not expectorate a thickropy mucus; respiration rapid and somewhat difficult in the inspiratory movement; no difficulty in expiration. After about an hour seemed to be getting plenty of air and string was removed. April 7. Had a restless night with severe cough; coughed up tube at 8 A.M. At 10:30 was breathing quite comfortably. The child grew gradually worse and was re-intubated at 4:30 P.M. with instant and great relief. April 8. Child has had a comfortable night, has slept well and is in good condition. Temperature normal; has taken considerable nourishment. In the evening Dr. Stewart reports that the child had a severe spell of choking; the parents thought he would die, but was doing well when he saw him shortly after. Great difficulty was experienced in taking food, the paralysis of the fauces causing it to come up through the nose. April 10. The child coughed up the tube four days after intubation. He continued to improve each day from this on, and finally made a perfectly satisfactory recovery.

Case 18.—April 22, 1893. Patient of Dr. Fischer, age 6 years 7 months, male. Diphtheria one week; seemed to start in larynx. Has had frequent attacks of croup and the parents took this for one of the same and did not immediately call a physician. He continued to grow worse and Dr. Fischer was called; he made a diagnosis of diphtheria and in a few days found membrane in the fauces; the croupy symptoms gradually increased, and all night and the day of the operation were very severe; the child was cyanosed and there was a marked sinking of the epigastric region at each inspiration and a great amount of supra-sternal depression. Intubation was advised and an effort to introduce tube was made; the patient was very docile but all efforts failed. The 3 to 4 tube was then tried and introduced at first trial with immediate relief; he took considerable nourishment in the usual posture, and did not have severe cough, although he did cough up a considerable quantity of thick mucus, just after the intubation. He grew steadily better each day and on Thursday the sixth day after the operation he coughed up the tube, after which he improved steadily. His temperature never ran higher than 101 after the operation. Three other children developed the disease after he did; two of them died of sepsis.

Case 19.—May 12, 1893. Dr. Paton's patient. Female, 3 years and 10 months old. Duration of disease one week; dyspnea gradually increasing. Very much cyanosed and nearing dissolution. There was no evidence of diphtheria.

The first attempt at intubation failed; the second was successful and was followed by coughing and expectoration of a considerable quantity of muco-pus; the breathing was rapid and the child was extremely depressed and had some sickness of the stomach with slight vomiting, but she said she felt comfortable.

May 14. Child seemed better than yesterday when the pulse was 150 and the respiration very rapid. Is taking large quantities of nourishment; pulse 120; respiration 42; seems bright and well; coughs somewhat and expectorates quantities of very thick yellow mucus; there is a decided

membranous deposit in the throat on last visit; temperature not taken.

May 14, P.M. The child passed quietly away, without any struggle or difficulty in respiration. Death caused by exhaustion and possible lung complication, two days after intubation.

EIGHT CASES OF SYPHILITIC STENOSIS OF THE LARYNX CAUSED BY WEB FORMATION, OPERATED BY MY METHOD OF COMBINED TUBAGE AND THE KNIFE.

Read in the Section on Laryngology and Otology, at the Forty-fourth Annual Meeting of the American Medical Association.

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Syphilitic stenosis of the larynx usually presents to us a pathologic narrowing of its passage, and so to a large degree acts as an interference to free respiration, and thus becomes a condition of alarming danger. Little attention was paid to the pathology of this form of stricture or stenosis, and much less special attention to its treatment in the early years of the century. Nevertheless, in 1828 we find the great Liston dilating strictures of this kind after performing preliminary tracheotomy, through the tracheal opening, and about that time, too, Bouchut and Horace Green began to operate in a similar way, believing that all forms of stenosis were amenable to treatment by dilatation by means of tubes passed through and held between the stenosed parts. Their theories and practices met with much support by the surgeons of that day. Even Trousseau once thought of practicing it, but somehow it fell into disfavor, largely because the operation had neither the system nor the instrumentation we now have—and, one by one, they abandoned it, and so it was left to a comparatively recent period.

The discovery of the laryngoscope was largely responsible for the revival of Bouchut's and other forms of operations. The first disciples of Bouchut and Green were Marduel in 1863, and Delore who took up tubage for stenosed larynges a year later. Gradually such famous laryngologists as Stoerck, MacKenzie, Tuerck, Schrötter, Weinlechner, Hering and in our own country, O'Dwyer, began to study the pathology of stenosis of the larynx and its treatment, and the great honor and credit of perfecting the treatment of stenosis of the larynx belongs to O'Dwyer who made tubage of the larynx, a feasible, safe and effectual treatment of stenosis of the larynx.

"But honor to whom honor is due." To Bouchut, therefore, we must always look as the father of tubage for stenosis of the larynx.

Stricture of the larynx, according to its locality may be placed in one of three classes: the supra-glottic, the glottic and the infra-glottic, and thus be best studied with regard to causes which bring about the stenosis.

The one to be considered here and which forms the subject of this paper is caused by the cicatrices, the scar tissue which results from the healing of ulcers about the larynx, forming web and bands of tissue that narrow and draw together the lumen of the organ in its narrow parts. This condition we all know obtains this in the healing of syphilitic ulcers

of the larynx. There are other forms of suddenly oncoming and gradually increasing dyspnea, such as occur in croup, diphtheria, tuberculosis of the larynx, and particularly in the acute form of laryngeal syphilis. Of these forms we already know a great deal and I need not dwell upon them further, but may pass at once to the cicatricial form, where the opening of the larynx is much narrowed by bands or web of cicatrix tissue. Many operations and modes of treatment of this form have been devised from time to time, with the most disappointing results, and the later re-discovery of tubage, however, bears riper fruit and puts into the shade the work of Bouchut, Schrötter, Weinlechner and the others.

The profession at large are thoroughly acquainted with the indications and the steps in the surgical practice of tubage of the larynx, and so I need consume no time with a detailed description of the steps in the operation.

I wish only to add to intubation as it is generally known as my own modification, or combined if you please, of operation and tubage.

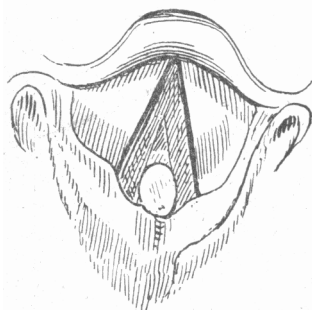


Fig. 1
Web forming the Stricture.
Before Operation.

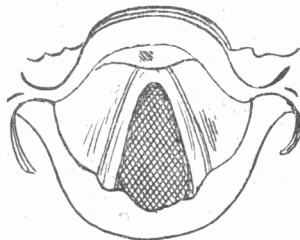


Fig. 2.
After Tubage and Operation.

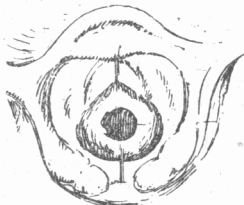


Fig. 3

Showing the Tube in position after the Cicatricial Web has been operated upon, and the continued dilatation in progress, until the edges of Web are healed.

Below I give my method and the result of eight cases I so treated since 1889. The first case so operated and reported was before the AMERICAN MEDICAL ASSOCIATION in that year. This procedure has served me well, and I am sure it is a far more satisfactory and radical plan of treatment than that of tubage and dilatation of syphilitic cicatricial bands alone, and gives a better chance of permanent cure without in any way increasing the risks of the operation.

In the accompanying drawing, is shown the pathologic condition of the first case I had the honor of reporting, as I observed it under the laryngeal mirror, and also the same larynx after operation and tubage. The drawing conveys to you a better and clearer idea than the most skillful word painting from my pen; also a third cut which explains itself, and the Lennox Browne knife.

The patient, a female age 35, was operated upon

March 27, 1889. In this case the stenosis was very marked. (I therefore present it as a typical case for my method of operating.) On laryngoscopic examination an inflammatory syphilitic adhesion was seen, which existed between the cushion of the epiglottis by a tight fibrous band, uniting the vocal cords along the anterior two-thirds of their free border and reducing the glottic chink to the size of a goose quill. The right cord was much inflamed and the side of the larynx generally was thickened; respiration was harsh and whistling but regular during the day; there was much dyspnea; on slight exercise, at night and during sleep loud stridulous breathing on inspiration. The examination of the lungs elicited dullness over both apices.

The patient was placed on large doses of the iodids and cold applications to the throat. These conditions of the throat within three weeks' time were much improved. Most of the inflammation disappeared.

Now for the treatment of the cicatricial tissue. Dilatation was tried for three months by means of the O'Dwyer tubes. These were worn for two weeks at a time and then changed for larger sizes. Under this mode of treatment and dilatation the patient showed much improvement. She gained in weight. Her lungs again on physical examination the second week showed a very marked change. After two months the tubes were discontinued and the patient was discharged. Two months later the patient came again under my notice and complained of her breathing, saying that it was not as free as a month previous. I again examined her by the laryngoscope, from which I learned that the cicatricial web again began to interfere with normal respiration, closing around as before treatment. I concluded from the condition of affairs that it would be best to operate, and thereby if possible, give her permanent relief. These were the steps taken for the permanent cure of stenosis of syphilitic cicatrices.

This patient was one well trained for laryngoscopic examination and who could stand any amount of laryngeal manipulation. A good light was thrown upon the operating field, and thereby the entire condition thoroughly explored before any operative procedure was undertaken. A 20 per cent. solution of cocaine was sprayed over the pharynx, post-pharyngeal wall, soft palate and larynx, in order to produce a complete local anesthesia of the entire surrounding localities. A gag was inserted on the left side of the mouth. This instrument should be made use of in all such operative maneuvers, so that one may be able to control the opening of the mouth, and not trust to the patient. An assistant should control the head of the patient against an ordinary head rest. These are the preliminary steps that I generally pursue.

The cutting is done with Lennox Browne's laryngeal dilator with cutting blades. This instrument possesses these advantages over the Whistler cutting dilator: in passing tubes into the larynx many difficulties are encountered, and especially through a cicatricial stricture are much greater than generally stated. This instrument of Browne's possesses the advantage of being a hollow tube of Schrötter and the cutting dilator of Whistler, so that the surgeon in operating is always sure by the outward passage of air, when the hollow tube is in the larynx; is able to incise with more certainty as to what he is cutting and,

moreover, in case of spasm the air passages are not entirely obstructed.

A large size laryngeal mirror is necessary in order to procure a good laryngeal image. The Lennox Browne cutting dilator was introduced with ease and the cicatricial web cut through. The breathing during the introduction of this instrument was momentarily disturbed; after its complete passage normal breathing was carried on through the hollow opening in the dilator. Hemorrhage was very slight.

differed but slightly in the degree of stenosis and the amount of cicatricial web. They were treated exactly in the same way. The web, after being cut through in each case and kept dilated by proper fitting tubes healed kindly, and the opening of the larynx restored to its almost normal size.

The conclusions I feel justified in arriving at from my operation are these:

1. In the first place the destruction of the cicatricial web, by means of the knife, is preferable in

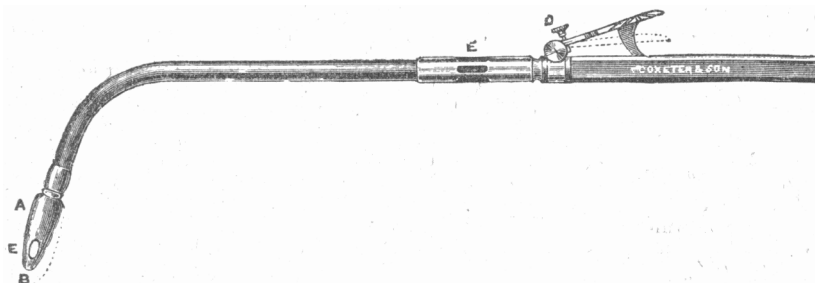


Fig. 4. The Lennox Browne Hollow Laryngeal Dilator, with Cutting Blade.
A—Terminal of the Hollow Dilator, containing the Cutting Blade, B, the extent of which is regulated by the screw at D. EE—Show openings for passage of air.

After the incision the instrument was withdrawn and the larynx thoroughly sprayed out. A few minutes later a large size hard rubber intubation tube was introduced into the larynx and kept there for three days without its removal. Cold applications by means of compresses were used for forty-eight hours with irrigation of the larynx, also spraying with a 10 per cent. solution of cocaine for the relief of pain; this was continued for two days with much relief to the patient. Iodid of potash was again resorted to. Three days later the tube was removed and again replaced. An examination after the first removal of the tube showed a great improvement and healing of the wounded cicatricial web. The cicatrix was diminished, and the size of the opening made by the incision was thus kept open by the continued dilatation of the larger size tubes, until the edges of the cicatricial tissue were well healed. The time of healing of these edges lasted seven days. The tubes should be worn for two weeks at least after their first introduction, and should be removed daily for cleansing. Astringent solutions should be used in spray form for after treatment.

This patient shown you made a complete recovery as the result of this operation. It is now four years since the tube has been permanently removed, and from what you can see by the condition of his larynx which remains in the same state as after the incision, is certainly gratifying. The patient is in excellent health and breathing at a normal rate.

This method of treatment seems to me to be of a permanent value as compared with other methods. There is no necessity for a preliminary tracheotomy. The tedious dilatation with dilating instruments for an indefinite length of time, and then with a view of a non-success.

I do not mean to say that every case can thus be treated, but there are cases which come under our notice for treatment, where such treatment by this mode I here introduce deserves a trial.

The seven other cases that came under my observation since then were practically similar, in all respects, to the one I have just reported. They were selected from my clinic and private practice, and

every way to the older operation of simple dilatation.

2. It is a more radical procedure and the obstructing tissue is destroyed quickly, instead of being pushed aside and thus allowed to absorb.

3. The operation saves time, a cure being effected with less chance of a recurrence of the difficulty, without increasing the risks of operation, than by means of simple dilatation.

These advantages in themselves seem to me to be sufficient to give my operation some consideration before the plan of surgical interference is finally decided upon.

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THE TREATMENT OF HAY FEVER.

Special Discussion before the Section of Laryngology and Otology Pan-American Medical Congress, Washington, September, 1893.

By DRs. D. BRYSON DELAVAN, New York; PRICE BROWN, Toronto; JOHN O. ROE, Rochester; S. S. KOSER, Williamsport, Pa.; JAMES E. LOGAN, Kansas City, Mo.; F. C. COBB, Boston; J. H. BRYAN, Washington; E. FLETCHER INGALLS, Chicago; and JOHN N. MACKENZIE, Baltimore.

DR. D. BRYSON DELAVAN, New York City.—No more formidable task can be imposed upon one than to open a discussion upon the subject of hay fever. I want, however, to draw you out on the treatment of hay fever, and I hope the discussion will be confined to the local and general treatment. There are two conflicting opinions; one is that hay fever is essentially a local condition. I think, however, there are comparatively few who entertain this idea. On the other hand it is largely conceded that however much local influences may have to do with the production of hay fever, there is broadly speaking, in the majority of cases at least, an underlying condition of some sort which tends to the production of this disease, and in so far it is necessary that we should shape our treatment accordingly. If we concede that there are general causes underlying hay fever, then we can not rely entirely upon the treatment of local conditions; we must look at the general, as well as the local state of the patient. In my opinion it is necessary, in order to treat hay fever successfully, to look into the general well being of the patient, and find whether he is suffering from lithemia, malaria, or any serious disorder of the heart, lungs or kidneys, and to find out the condition of his