Whether the symptom may occur without there being any fistula we cannot yet tell. Perhaps a very feeble symptom may be seen by a circumscribed labyrinthitis without any fistula. But I should not think that it is to be found in a sound labyrinth, as is the ordinary symptom. Then we must remember that the pressure used by my method, *i. e.* the pressure of the blood, is much less than the pressure produced by the balloon of the old method. I, therefore, also believe that there is not so much risk attached to the new method. Besides, it is very simple, and if the investigator is not experienced in observing the sometimes rather slight nystagmus, it is sufficient to notice whether the patient gets giddy or not. By a pressure on the other side he will be able to control, whether the giddiness is due to an irritation of the labyrinth or to an anæmia of the brain. I think we here have a method of value to every practitioner, for it is doubtless a frequent symptom, indeed, is probably present in as good as all cases of non-operated labyrinth fistula.

How much of these expectations as to this symptom the future will realise it is impossible to say, but it is certain that the phenomenon has in the four above-mentioned cases given valuable indications where other symptoms of labyrinth fistula have been uncertain or entirely absent. It is, therefore, desirable that this symptom should in future become a regular part of the general otological examination to the same extent as the hitherto practised fistula method.

I have to express my thanks to the director of the Ear and Throat Department of the Commune Hospital of Copenhagen, Prof. Holger Mygind, who performed all the operations mentioned in this paper, for allowing me to publish these cases.

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SOCIETIES' PROCEEDINGS.

ROYAL SOCIETY OF MEDICINE—LARYNGOLOGICAL SECTION.

March 2, 1917.

President: Mr. T. MARK HOVELL.

Laryngeal Stridor due to Chronic Osteo-arthritis, relieved by Dilatation.—J. Dundas Grant.—The patient, a woman, aged over sixty, had suffered with discomfort in her throat for over fourteen years, and in the early part of 1912 developed a hard cough and noises in respiration observed mainly during sleep. The stridor was extremely

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marked, and there was complete absence of abduction, the vocal processes remaining in complete contact, there being only a narrow elliptical slit between the cords through which respiration was carried on. At first sight the case seemed to be one of bilateral paralysis of the abductors. Fourteen years previously she states she had an ulcer in her throat, close to the vocal cords, which was cauterised twice a week for six weeks with a brush. The possibility of cicatricial contraction as the result of cauterisation was, therefore, considered. She, however, presented distinct signs of chronic osteo-arthritis, and it seemed that this condition was present in the crico-arytænoid joints. A weak spray of cocaine seemed to diminish the severity of the attacks of stridor, but she obtained no marked relief until dilatation by means of Schrötter's tubes was carried out. It cannot be said that even now there is any material movement of the arytænoids, but the elliptical breathing space is certainly larger and the improvement in the respiration is extremely marked.

Mr. TILLEY: I was interested in this case because, on April 1, last year, a colonel, aged seventy-seven, bowed down with chronic rheumatism in all his limbs, came to me. The story was that in 1881 he had noticed he had difficulty in breathing. In 1884 he was obliged to retire from the Service on account of constant attacks of breathlessness, and one night he was nearly suffocated by extra severe dyspnœa. In April of last year his stridor was extreme, and there was bilateral adduction of both cords, and I thought his condition serious. Radiography did not reveal anything in the chest in the way of new growth or aneurysm: indeed one would hardly expect either of these after such a long history. What was the nature of this adduction of the cords? In view of the general condition of his joints it was imagined he might have fixation of both crico-arytænoid joints. On December 28 last, I was asked to see him at his home. He was practically moribund and died three hours after I left. The "notch" of the thyroid was level with the manubrium sterni, *râles* in the lung were pronounced and extensive, and he was cyanosed. The laryngeal aspect of the case seems very similar to the one Dr. Grant is now showing. In the absence of a *post-mortem* examination, it was impossible to say whether there was any lesion pressing on either recurrent laryngeal nerve. If we exclude new growth and aneurysm in such a case, we are left with the possibility of a condition such as is illustrated by the present case.

Sir STCLAIR THOMSON: In this, as in similar cases, the last diagnosis we should give is fixation of the arytænoid joint, because I believe it is one of the rarest occurrences in laryngology, and absolutely proved cases of it are few and far between. This case seems to me more like cicatricial stenosis, with the interarytænoid space gone; for the cords are almost joined to one another. It is like a condition I have seen in a number of cases of tuberculosis, in which spontaneous healing takes place at the interarytænoid region, and the scar tissue draws the posterior ends of the cords so close together that in some cases I have had to do tracheotomy. On watching the present patient's arytænoids carefully when she is asked to phonate, the arytenoid is seen to swing on its base, particularly on one side. So I ask whether all other conditions have been excluded. I do not suppose this is tubercular, but it may be an old syphilitic case, and perhaps the Wassermann test may help us. Passing from that aspect, I would ask: "Why spare tracheotomy in such a case?" It seems a pity considering that tracheotomy is such a

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simple and safe procedure, and can be done without a general anæsthetic. This patient has had her discomfort fourteen years, and I do not see why she should not enjoy life, and I see no objection to her having a tracheotomy tube, especially as she may be able to discard it at a future date. Meantime it would also afford rest to the larynx. If the trouble is mechanical, she could wear an O'Dwyer's tube, which will produce successful dilatation.

Dr. W. Hill: A prolonged case of abductor paralysis is liable to end in immobilisation, partial or complete, of the crico-arytænoid joint. Why that takes place I am not prepared to say, but I assured myself it was present in one case. In that case, one vocal cord was completely paralysed, as the result of an operation for goitre many years before. The arytænoid was fixed in a bad position: the cornicula pointed towards the middle line, whereas in Dr. Grant's case the vocal processes are in approximation. In my case, I was able, with my finger, to feel the arytænoid on the paralysed side, and it was as immobile as if it were ankylosed to the cricoid cartilage. I thought I should be able easily to take away that cartilage with forceps by the direct method, but it was so fixed that it would have needed to be cut out, and I did not do it. At a later date I did laryngofissure, for something else, and I then felt the joint again, and pointed out to those present that the joint was immobile. The deformity present there was the opposite to that in Dr. Grant's case. Conceivably this is a post-paralytic contracture of the muscles of the joint, which has become so fixed that the arytenoids do not move. [Drawing and demonstration.] I recommend Dr. Grant to try the following method: Put down a direct vision tube, and then put down the metal end of a pencil protector—of course, without the rubber—on to the cornicula, and then see if the arytænoid will oscillate. In my case, the arytænoid on the immobile side would not move, but the other side was freely movable.

Dr. F. de Havilland Hall: After the discussion we have had on this case, I hope that if Dr. Grant intends to continue the use of Schrötter's tubes, he will have the great patience which such treatment will demand. I remember that in my early and enthusiastic days I had experience of dilatation of the larynx, and I found it most disappointing. If, in the case of the out-patient department of the hospital, the patient failed to come at the due date, the condition, when next he came, was found to have relapsed in a most discouraging manner. I have come to regard the means as almost hopeless, especially in the case of out-patients.

Mr. Cyril Horsford: Two or three days ago I saw a case of typical double abductor paralysis, for which I could find no cause: there were no signs of growth in the mediastinum or the neck, nor anything to throw light on the cause of the condition. The stridor, though obvious, was not alarming. I advised her doctor that, before it got too late, tracheotomy should be done, at the same time pointing out that she would be able to use her voice well. I stated what I believe is Semon's law, that eventually, when the paralysis becomes complete, the cords recede until they occupy the cadaveric position. I ask whether that is so. If so, it does not appear to confirm Dr. Hill's theory that the cords become fixed in an awkward position. If the later stage is adductor, not abductor, paralysis, one would expect to be able to promise, after some time, that the tube could be removed. That is a strong recommendation for the early insertion of a tube. I shall try

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to induce my patient to come and show herself next time. It has been going on for four years.

Dr. DONELAN: About ten years ago I showed the case of a lady who had caught cold and got fixation of the left arytenoid. The case was diagnosed by Sir Henry Butlin and Sir Felix Semon and others as rheumatic fixation of the arytænoid cartilage. I mention it because of what Mr. Cyril Horsford has just said as to the position of the cord. The cord lay in the cadaveric position, and had done so from the first. I was glad to have my impression that it might be a syphilitic condition in this case anticipated by Sir StClair Thomson. It looks very much like a case of old syphilitic stenosis I saw recently in which there was fixation by similar bands of adhesion.

Dr. DAN MCKENZIE: I do not know whether Dr. Grant has examined the case by hypo-pharyngoscopy. I have seen the method described as rough, but I do not find it upsets the patient at all, and it is easily applied. Arguing on the grounds of probability, one would say that osteo-arthritis of the crico-arytænoid articulation would be unlikely to result in such a position of both arytænoid cartilages as to bring both cords simultaneously into the position of adduction. I think it would be useful to have the larynx skiagraphed. I remember one case in particular in which the cord lay in abduction, and it was a simple matter to examine the patient by hypo-pharyngoscopy, and one then saw a great swelling behind the arytænoid of the affected cord. It persisted many years, and I concluded there was a chronic change in the bone.

Dr. DUNDAS GRANT (in reply): I thank members for their remarks. I think, with Mr. Tilley, that the two conditions are associated: it could scarcely be a mere coincidence, though there is much in what Sir StClair Thomson says as to the possibility. The appearance is such as would be produced by such a cicatricial contraction as he and I have seen in tuberculosis: I saw it also in one case in which applications of trichloracetic acid had been too zealously made for the destruction of tuberculous nodules in the interarytænoid space. That patient had very distressing stridor, which, however, settled down later. I think the possibility of bilateral paralysis of abductors may be left out of account. The reason which Dr. Hill adduced is incontrovertible. The patient has been very greatly benefited by the introduction of these tubes, even at longer intervals, and she has never gone back to the condition she was in before. I have not practised hypo-pharyngoscopy in this case, but I looked carefully for distortion of the joints. I think Sir StClair Thomson found there was none. I admit it is a weak spot in the diagnosis of arthritis, because in a paper which Sir Felix Semon published a number of years ago, he said swelling of the joint was one of the characteristic features. X rays have not been used in the case, but I think they might be with advantage. I think the suggestion as to tracheotomy is a most appealing one, and probably that will be the ultimate solution.

Symmetrical Fibromata on the Vocal Cords, removed simultaneously by means of the exhibitor s Forceps.—J. Dundas Grant.—The patient, a fish-hawker, aged thirty-six, suffering from extreme hoarseness of eleven months' duration, came to Brompton Hospital and was referred to the throat department. There were elongated sessile fibromata covering the middle of the edges of both vocal cords.

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The case seemed to invite the use of the exhibitor's so-called "safety" intra-laryngeal forceps, and at one introduction the fibromata were cut off with absolute completeness on the left side and almost absolute on the right; the voice was at once completely restored; the small recurring tags on the right side were destroyed by means of the galvano-cautery.

Dr. DUNDAS GRANT: There has been a recurrence since then, as the man has been using his voice, so that the case is not yet a cured one.

Dr. DAN MCKENZIE: I cannot refrain from once again speaking of the great usefulness of Dr. Grant's laryngeal forceps. Some time ago I tried to remove a little growth from the cord by the indirect method, and I used his forceps. I was delighted at the ease with which the fibroma was produced.

Dr. WILLIAM HILL: I have used Grant's forceps for the direct method. I have had them made straight for the purpose. I think they are about the best forceps one can use for small growths projecting from the cords.

Mr. CYRIL HORSFORD: I have not used Grant's forceps for growths on the vocal cord. I think this is a good opportunity to bring up one point for discussion—namely, as to the advisability of using the galvano-cautery for the destruction of simple growths on the edge of the vocal cords. It is done by many laryngologists, but I regard it as a most dangerous operation, and from the artistic point of view, especially in the case of singers, the result is fatal as regards the voice. I think it would be valuable to hear a few experiences and views as to the suitability or advisability of the method.

Lupoid Tuberculosis of the Pharynx in a Boy, aged eight, affecting the Soft Palate and Uvula.[1]**—Irwin Moore.**—Patient, who was first seen on January 16, complained of a swelling in the neck under the chin, which was first noticed eight months ago. On examination, a semi-translucent swelling affecting the uvula was seen extending over the greater part of the soft palate, which, on palpation, felt solid, rigid, and leathery. The tonsils were not enlarged. Some adenoids which were present have since been removed, and were found to be tuberculous. The submental glands were enlarged and matted together, also enlarged discrete glands were present on both sides of the neck and in the inguinal region. There were no signs of pulmonary disease. With the exception of ulceration of the mouth when he was a year old, patient has been healthy, and has always had a good appetite.

Patient has been treated for six weeks with potass. iodide, and the submental glands have considerably decreased in size, but the condition of the pharynx is unchanged.

BLOOD REPORT (DR. EASTES' LABORATORY) ON FEBRUARY 16.

Number of red corpuscles . .	4,390,000 per cubic millimetre.
Number of white corpuscles .	19,500 ,, ,,
Amount of hæmoglobin . .	70 per cent. of the normal.
Colour index	0·83.

[1] The original title given to this case was "Lymphadenoma (Hodgkin's disease)," but in view of the opinions expressed, and a later examination of the lungs showing slight active tuberculosis, it has been changed to "Lupoid Tuberculosis."

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Differential Count of 400 *White Corpuscles.*

Small lymphocytes	27 per cent.	40 per cent.
Large lymphocytes	13 ,,	
Polymorphonuclears	57	,,
Eosinophiles	3	,,
Mast cells	0	,,
	100	

No poikilocytosis was observed. There is occasional "stippling" of the red discs.

Histological report on adenoid tissue removed from nasopharynx: "The lesion is undoubtedly tuberculous."

Dr. JOBSON HORNE, commenting on the description of the case printed on the agenda paper as "Lymphadenoma (Hodgkin's disease)," said: Before labelling the case as one of Hodgkin's disease we should remember that the term covers a large number of conditions, and that the growth removed from the nasopharynx is, in the opinion of the histologist, tuberculous. I could, had I known, have brought some specimens to compare with the one exhibited. Many years ago I did research work on the subject,[1] and from the same body I was able to demonstrate in the glands typical Hodgkin's disease, lymphosarcoma, and tuberculosis. I think we need to be a little more precise in this case.

Dr. DAN MCKENZIE: There is the fact that the submental glands are enlarged and matted together, which is not in favour of lymphadenoma, in which the glands remain discrete, there being no peri-adenitis to mat them together. Dr. Horne's opinion that the lesion is tuberculous is interesting, because I have heard him say that when multi-nucleated giant cells are found, one should be careful before calling it tuberculous. Lymphadenoma begins invariably in the cervical glands. I think it commonly affects the tonsil as well as the tonsillar gland, and this gives us the idea that whatever does produce lymphadenoma obtains entrance by the tonsil. Removal of the tonsils in lymphadenoma, even in an early case, however, has no effect on the course of the disease.

Dr. JOBSON HORNE: At a future meeting I shall be pleased to demonstrate specimens which illustrate the points I have raised. Another point is the part played by the larynx in Hodgkin's disease. In some cases I found ulceration in the larynx, and that, and not the tonsil, was the site of the infection.

Mr. FRANK ROSE: I agree with Dr. Jobson Horne's remarks as to the difficulty in establishing the diagnosis of Hodgkin's disease, or lymphadenoma. My experience is that in the *post-mortem* room a considerable proportion of the cases turn out to be something else, mostly tubercle. Before accepting that diagnosis in this case I think we require more convincing evidence.

[1] "The Larynx—a Site of Infection in certain Diseases of the Lymphatic Glands known as Lymphadenoma, Lymphosarcoma, Tuberculous Adenitis, with a Note on Primary Tuberculosis of the Organ," JOURN. OF LARYNGOL., RHINOL., AND OTOL., December, 1901.

(*To be continued.*)

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