

## THE RESULTS OF TREATMENT OF LARYNGEAL CANCER BY MEANS OF THE X-RAY.\*

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The suggestion that the X-ray might possibly prove an effective remedy for malignant disease has aroused universal attention. During the past year series of experiments have been undertaken in all leading scientific centres and large numbers of observations have been made. The knowledge of this has not been slow in reaching the general public. Already the victims of cancer are clamoring to know whether or not the new remedy is an assured success. Their anxiety is natural, in view of the character of the disease itself, and also in view of the acknowledged danger of disaster from loss of time spent in useless experimentation when, as far as we now know, early radical operation is needed to offer even a fair chance of cure. What the X-ray itself is, or is not, how it should be applied, and what has been accomplished by it in other fields, it is not my purpose to discuss.

During the past six months we have been repeatedly importuned by sufferers from laryngeal cancer as to whether in their cases the use of the X-ray would be likely to effect a cure. The answer has always been that the study of this thing was in its infancy, and that no reliable information concerning it was at hand. Feeling that the importance of the subject warranted the attention of this Association to it, and that we should try to discover as speedily as possible whether the method could be recommended or not, I have felt justified in presenting a few notes which will suggest the actual position of the question at the present time. In order to gain the necessary information I have studied recent literature for reports of cases, have attended several meetings at which the subject was discussed, and have personally interviewed a number of the leading experimenters. I regret to report that, to the best of my knowledge, up to the present time, not a single case of carcinoma of the larynx has been reported as cured by the X-ray. Of

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several large institutions in New York City at which the X-ray is being used upon malignant cases in general, but one has had cases of laryngeal cancer. Here four cases have been treated; two, as I understand, with unsatisfactory results, and two still under treatment, showing some signs of improvement, but far from being cured.

Dr. William J. Morton has treated for me a case of advanced malignant disease of the throat, originating in the larynx, with interesting results as to the effect of the treatment upon the mass of the growth. The patient died, however, from chronic Bright's disease after about twenty applications of the X-ray. In a case of cancer of the tonsil and lateral wall of the pharynx, shown me by Dr. Morton, the results thus far seem to be excellent.

During the past three months this subject has been presented and fully discussed at three largely-attended meetings in New York City. Both meetings called out an unusually full representation of those practically interested and included leading experts from Boston, New York, Brooklyn and Philadelphia. Not a case of cancer of the larynx was reported. I am unable to find that any cases have been reported from Chicago.

Reviewing the literature of the subject, Pusey (*Journal of the American Medical Association*, April 12th, 1902), reports a large series of cases, in none of which the larynx was involved. Dr. Wm. B. Coley writes to me (May 19th, 1902): "I have tried to keep track of everything that has been published about the X-ray treatment of cancer, but thus far have not run across anything directly bearing upon laryngeal cancer. However, I do not see why the good results obtained in other localities should not be duplicated in the larynx."

Dr. Morton tells me that he is treating at present one epithelioma of the tonsil and lateral wall of the pharynx; one of the superior maxillary region following extraction of molar teeth; one of the cheek; and one of the tongue. Improvement in all of these cases is taking place.

From the meagre and fragmentary details which I have been able to secure, it would appear that no positive deductions as to the value of the X-ray in laryngeal cancer can be made until the method has been tried upon a larger number of cases than up to the present time have been treated by it. Moreover a considerable

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\*Dr. F. H. Williams, New York Academy of Medicine, Meeting March 6, 1902.

period of time must elapse in the study of a given case before it can be pronounced cured. In the general results thus far obtained such diseases as lupus and various other lesions of the surface have responded more satisfactorily than have deeply-seated malignant growths. This appears to be true of laryngeal cancer, in which the effects of the X-ray have apparently been less satisfactory than in some other directions.

In answer to the question "should the X-ray be resorted to for the treatment of cancer of the larynx" it is fair to say that with regard to inoperable cases, since much relief has been afforded in general cases of malignant disease and in the relatively few cases of cancer of the neck and throat in which it has been applied, the victim of advanced laryngeal cancer should be allowed the benefit of its use.

On the other hand, in early cases of laryngeal cancer it has always been a grave question whether any time whatever should be lost in experimentation. The universal opinion of the day is to the effect that Butlin's plea for early radical operation is correct and that little else offers even a fair chance of safety. On the other hand, it is now stated that the benefits of the X-ray treatment are likely to make themselves quickly apparent, and that a fair trial of it might be made within a period of two weeks. This being true, we may safely conclude that, in the average case, where the progress of the disease was not rapid and where a few days would have to elapse in any event between the time that the diagnosis of cancer was established and the operation for its removal actually performed, it would be entirely justifiable to submit the patient to treatment by the X-ray. The same principle is already observed in the administration of iodide of potassium for the purpose of eliminating the possibility of the local disease being due to syphilis. It is certainly not going too far to assert that it should also be carried out with the X-Ray. That the method is a specific cure for cancer has not yet been proved. Without question, however, it possesses extraordinary possibilities which cannot long remain in doubt. What is now needed is the largest possible series of carefully reported cases, and an allowance of time sufficient to prove that the new treatment is capable of complete and lasting success.

Case. S. C., aged 65, widower. Had syphilis twenty years ago. Has chronic nephritis. Is rheumatic. Voice became hoarse in February, 1901. Consulted me in November, 1901. At this time

there was a large mass, apparently epitheliomatous, springing from the right side of the larynx. There was much infiltration of the posterior commissure and beginning involvement of the opposite side of the larynx. The glands of the neck were involved on both sides, as was the inferior part of the lateral wall of the pharynx. The case was clearly inoperable, on account of the wide distribution of the disease, the condition of the kidneys and the age of the patient. In order to eliminate the possibility of the lesions being specific, the patient was placed upon the iodide of potassium in moderate doses. The result of this was promptly disastrous, for within a few days he developed sudden oedema of the larynx with urgent dyspnoea and his life was only saved by instant tracheotomy. During the winter the growth in the larynx and neck increased enormously in size. In March he was placed under the care of Dr. Morton for treatment with the X-ray. He submitted to about eighteen exposures. After the first few treatments the growth seemed less tense and began to soften at its middle and to harden at one end. Soon the entire contour of the growth seemed to change. Later it seemed that the mass was breaking up, as there was a distinct attempt at the separation of one segment of it from the other. At this period treatment had to be abandoned and the patient shortly afterwards died from Bright's disease.

There appeared to be no doubt that the mass became smaller and softer after about two weeks' treatment, and that the patient had been distinctly benefited.

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