

RADIUM THERAPY IN TUBAL STENOSIS.*

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In the course of the last seven years there were observed in the Radium Institute of Stockholm a series of oto-laryngological cases that were sent in for radium treatment. In several of these cases radium had a strikingly favorable action and in the cases of tubal stenosis this action by radium was productive of more results than any other method employed. It might be of interest, therefore, to report the following cases:

Case I. A man 53 years of age came to the writer in 1910, complaining of a cloudy sensation in the ear, tinnitus, and difficulty in hearing. He was treated by catheterization of the Eustachian tube and after each treatment he would feel better, but on the following day the condition would relapse into its previous state. During the last month he received a daily treatment, also with transitory result. The condition was one of exudative catarrh in the left middle ear with retracted, glistening tympanic membrane, serous exudate, lowered hearing capacity, feeling of fullness, and tinnitus in the ear. The cause was easy to find. In the left part of the naso-pharynx, behind the mouth of the Eustachian tube, there was a tumor the size of a hazelnut. It was somewhat infiltrated, movable, not ulcerated. Microscopic examination of a small excised portion showed the tumor to be a sarcoma. As the patient was averse to undergoing an operation, he was given radium treatment according to the dosage recommended by Professor Forsells. After the first radium application the aural symptoms completely and definitely disappeared. Seven days after the treatment the writer examined the patient and found the tympanic membrane normal, the exudate absent, and the hearing perfect. The feeling of fullness and the tinnitus had disappeared. The tumor, however, had only slightly decreased in size. Thus the condition remained for several years, after which the patient passed from observation and died several years later, apparently from his sarcoma.

Case II. A man of 46 years of age for six months had complained of symptoms similar to the patient in Case I. He was also treated by tubal catheterization with transitory improvement, the symptoms returning usually the following day. After he had had

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this treatment uninterruptedly for two months he came under the author's observation. He had a bilateral exudative catarrh, the exudate being noticeable through the glistening, retracted tympanic membrane. His hearing was lowered and he had a sense of fullness in the ear with tinnitus. As a cause for this condition there was an ordinary affection in the naso-pharyngeal vault. The mucous membrane on both sides of the naso-pharynx, as well as on the posterior area of the nasal septum and in the upper and outer choanal regions, was very swollen and ulcerated in certain places. A small piece of mucosa was excised for examination and the microscopic examination showed beginning sarcoma. The author was in doubt at that time, and still is, as to the correctness of this diagnosis, but he considered himself in duty bound to institute radium treatment, since the "tumor" was obviously not operable. The patient was treated in the Stockholm Radium Institute twice. The symptoms immediately disappeared completely, not only as regards the ear but as regards the naso-pharynx. The patient was again examined six and nine months later respectively and each time he was symptom free.

Case III. A man 45 years of age came under the author's observation in 1917 under similar circumstances. He had suffered for a long time from colds and tubal catarrh and had been treated without permanent result by catheterization. Examination showed a moderate rhinitis without changes in the naso-pharynx, retracted tympanic membrane, serous exudate, and lowering of hearing capacity. He was put on a strict hygienic-dietetic regime, and treated by catheterization for three weeks. At each treatment the exudate could be easily expelled, but after two days the condition would relapse to its former status. Radium treatment was recommended, and this was carried out without delay. A radium tube was placed in the mouth of the Eustachian tube in the evening and removed the following morning, the dosage being that recommended by Professor Forsells. The patient came to me in the morning entirely symptom free. Subsequent examination of the patient's ears showed them to be perfectly sound.

It is recognized that lymphoid tissue wherever it occurs in the human body is peculiarly susceptible to radium. In these cases the tubal stenosis was due to a swelling of the lymphoid tissue and the immediate subsidence of the swelling was brought about by the radium.