RHINO-SCLEROMA: REPORT OF TWO CASES.

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Rhino-scleroma in the United States, in spite of the large foreign immigration, is still of infrequent occurrence. Dr. Emil Mayer, after a careful search through the literature has found only 16 cases. To these can be added another case recently reported by Dr. A. Braun, of New York, in the February number of *THE LARYNGOSCOPE*. For a summary of all the cases, except the latter, the reader is referred to Dr. Mayer's article. Including my cases, four have been seen in Chicago.

*Case 1.** History: Female, aged 21, married, born in Austrian Poland. She had been in this country two years. Formerly worked in a paper-box factory. Family history negative. She is quite positive that no other member of her family has had a similar trouble. This is her first serious illness. Her present trouble began in the fall of 1907. It was first characterized by a sensation of dryness in the throat. Accompanying this was a slight hoarseness. About a month later the dryness in the nose began. With this symptom there was a feeling of obstruction in the nose. About two months after the dryness in the throat began the cough developed. This was accompanied by expectoration, choking spells and attacks of dyspnea. These various symptoms grew progressively worse so that in the latter part of February, 1908, she was admitted to the Cook County Hospital. On admission she complained of shortness of breath and soreness in her throat. The latter was referred to the region of the larynx. The dyspnea was both inspiratory and expiratory and was of a marked grade. Cough was frequent with the expectoration of a yellowish-white material. The hoarseness had reached a degree of almost complete aphonia. There was pain on swallowing. Appetite was poor. She slept a great deal but interruptedly because of the cough. She had had night sweats for several weeks but there was no loss in weight. The menses had ceased shortly after she became ill. There was no dizziness or headache. She complained of some slight pain in the legs and a feeling of weakness which came on after exertion. For the past few weeks tinnitus aurium had been present, especially at night.

*Read before the Chicago Medical Society, May, 1908.

Examination: Chest and abdomen negative. Urine normal. Nose: Both vestibules normal. The nasal cavities contained a thin, whitish secretion which later had a tendency to form crusts. On removal of these the mucous membrane was seen to be paler than normal. On the right side the middle turbinal was adherent to the septum both at its anterior and posterior ends. The inferior turbinal had a roughened and slightly irregular nodular appearance and on palpation with a probe the soft tissues yielded but slightly, showing that there was a deficiency of the erectile or cavernous elements. The probe also showed an increased sensitiveness of the nasal tissues. The right side of the septum presented no gross changes. The left inferior turbinal showed at the upper part of its anterior end a grayish white area resembling scar tissue. The turbinal was adherent to the septum for about four-fifths of its entire extent. Far back on the septum and opposite the middle meatus there was an irregular nodule. Naso-pharynx: Pale. No crusts or secretion present. Considerable infiltration on the right side which extended up into the vault; the left side only slightly affected. Both tubal orifices appeared narrower than normal. Pharynx: General anemic appearance. Uvula and palate otherwise normal. The posterior pharyngeal wall showed islands of atrophy, at the sides a number of enlarged vessels. The most characteristic change was seen back of the right posterior pillar where there was a grayish-white elevation about three-eighths of an inch in length and one-fourth of an inch in width. Above this and extending into the naso-pharynx there was a somewhat similar nodule. These were the only evidences of pharyngeal involvement. The base of the tongue was normal.

The epiglottis and larynx partook of the general pallor. About the center of the right false cord a nodule was seen. The left false cord was increased in size by what appeared to be a diffuse infiltration. The true cords were both involved, although the right could be partly delineated and still retained some motion. Below the cords on both sides there was a mass which extended into the trachea. The glottic and subglottic spaces were so encroached upon that it was with difficulty that a No. 1 Schrötter bougie could be passed. The arytenoids, inter-arytenoid space and ary-epiglottic folds were not involved. The color of the sub-glottic growth was gray, with a slightly reddish tinge. It appeared to be smooth. There was no ulceration of any of the affected parts. Both membrana tympani were retracted.

A culture was obtained by the following method: The turbinal was anesthetized with cocaine, cleaned thoroughly with bichloride solution, scraped lightly with a curette until there was an exudation of serum and this was inoculated on tubes of serum-agar. The resulting growth was a pure culture of the Frisch bacillus. The complete bacteriologic findings are given below.

The treatment carried out consisted in passing the Schrötter bougies. This sufficed in rendering the patient more comfortable for about two and a half months. Dyspnea then became so urgent that tracheotomy was necessary. Subsequent to this X-Ray treatments were given for a time.

Present condition, February, 1909. The nares still show the whitish secretion. The inferior turbinals are greatly atrophied, the disease, so far as the nose is concerned, having probably reached the terminal stage of contraction. It has been increasingly difficult the past few months to obtain a pure culture of the bacilli from the nose. The naso-pharynx shows no extension of the process, in fact, the disease seems to have undergone a retrogression in this locality. The pharynx also shows no evidence of involvement, the follicles spoken of above having disappeared. The right vocal cord appears more defined in outline and moves practically throughout its normal extent. The left cord has also a greater range of movement than formerly. The subglottic tissue still has the grayish coloration but has lost its puffy appearance and seems to be firmly contracted down on the tracheal wall. The glottic and subglottic spaces are much larger and offer no obstruction to the entrance of air. On account of the improved laryngeal condition it was decided upon to remove the tracheotomy tube. This was done early in February, up to which time the patient had worn the tube about nine months. She remained under observation for a few weeks when she was discharged from the hospital with instructions to report at times for examination. This she has failed to do, but the writer has heard indirectly that her condition has remained good. Whether the physiological rest obtained by the larynx through the tracheotomy or the influence of the X-Ray treatment was responsible for the lack of extension and apparent retrogression of the disease it is impossible to state.

Sections of tissue removed were made and examined by Dr. E. R. LeCount of Rush Medical College. He reported that the tissue changes were the same as those commonly described as being present in rhinoscleroma. The bacteriological investigation was made by Dr. A. A. Blatherwick, of Rush Medical College, and is as fol-

lows: The bacillus of rhinoscleroma: Colonies A-I and B-I showed exactly the same characteristics and cultural growth in every respect so only A-I will be reported. Hanging Drop: A short non-motile bacillus. Gentian Violet: Short, plump bacillus about the size and shape of *Bacillus Coli Communis*. Has a distinct halo. Grouped together in smears. Rarely alone or in pairs.

Gram's Stain: Negative. Welch's Capsule Stain: Capsules stained readily. Cultural Characteristics. Slant Agar: Luxuriant; transparent; translucent; moist; viscid; broad, elevated growth. Gelatin Stab: Resembles in shape a nail. The surface growth being round and elevated. No liquefaction. No gas. Milk: No change after 21 days. No acid nor coagulation. Glucose Agar Stab: No gas. Nail-like growth. Bouillion: Whitish, viscid, sediment at end of 24 hours which became heavier at 48 and 72 hours. Potato: Luxuriant, translucent, transparent, broad, elevated, viscid, moist.

Sugars	Dextrose		Saccharose		Lactose	
	Gas	Cloud	Gas	Cloud	Gas	Cloud
24 hours	o	+	o	+	o	—
48 "	o	+	o	+	o	—
7 days	o	++	o	++	o	+
14 "	o	++	o	++	o	++
21 "	o	+++	o	+++	o	++

Slant agar cultures were made from each of the fermentation tubes to prove that the bacilli were still living at the end of 21 days.

At the end of 24 hours smears were made from these slants and stained with Gentian Violet. The smears all showed organisms with the same characteristics as the original smears of the bacillus of rhinoscleroma.

Case 2. J. P., male, aged 23, shop-worker was admitted to the County Hospital, February 16, 1910. He complained of an obstruction in the nares. Before coming to this country he lived in Bilstock, Russo-Poland. He had been in the United States 3½ years, of which 3 had been spent in New York and the balance in Chicago. Family history was negative with the exception that his mother had some external trouble of the nose lasting about 2 years, but which was finally cured. He gave the following history: The obstruction in the nose had existed for 7 months, although one year ago he noticed a small papule on the left ala. This bled easily. Two months subsequently a similar growth appeared on the right side of the septum. He had a slight discharge from the nose which came on 4 months after the eruption. He had no pain in the nose at any time. He noticed a peculiar hardness of the nose for the

last 6 months, and complained also of trouble in the throat which had existed for 3 months. Two months ago noticed pain in the palate; this was constant day and night; it was not increased by swallowing.

Examination: Nose.—Enlarged over the soft parts, especially on the right side. The hardness was of the so-called stony variety. Both vestibules were filled by a firm hyperplastic growth completely preventing nasal breathing. On the left side, this growth seemed to take its origin from the alar surface, the septum and the floor, on the right only from the external wall and floor. The growth itself was firm, rather pale, irregular and nodulated. Palate.—The right side of the hard palate showed an irregular oval area of superficial ulceration, about five-sixths of an inch in length and four-fifths of an inch in width. The margins were defined but there was no area of hyperemia surrounding it. It was very hard to the touch of the probe and bled easily. On the soft palate at the base of the uvula there was an ulceration which encircled the entire base extending up on the palate. A little nodular growth presented within this area. Both posterior pillars were thickened, the right for its upper half, the left for its upper third. The soft palate was hard and unyielding. Its color was paler than normal. The posterior pharyngeal wall was normal. A view of the naso-pharynx was unsatisfactory on account of the thickness and rigidity of the palate and pillars. The vocal cords were slightly congested and the tracheal mucosa appeared thickened.

The diagnosis of Rhino-scleroma was only positively made after cultures and sections were examined. The stony hardness of the nose made one suspect this disease, but the palatal condition was so atypical that syphilis was also to be thought of. Anti-specific treatment had no effect upon the growth or ulceration.

The treatment consisted of the removal of the nasal growths as thoroughly as possible. X-ray treatments were carried out on an average of 3 times weekly for several months. The patient left the hospital the middle of May. Nasal respiration was satisfactory, although the palatal condition, while it had not extended, did not show any great amount of improvement. There was perhaps a slight healing of the ulcerated areas extending from the periphery inward.

I wish to acknowledge my indebtedness to both Dr. LeCount and Dr. Blatherwick for the pathological and bacteriological examinations.

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