

In the second case the tonsils were tuberculous. Tonsillectomy had no effect on the swelling of the glands. The glands were removed in a surgical clinic six weeks later. At present the cervical glands are still enlarged.

3. Three cases, in which there was slight enlargement before, present the same picture. The tonsils in these cases were not tuberculous.

To summarize 160 cases:

Ninety-two had no enlarged glands.

Sixty-eight had more or less enlarged glands.

Fifty-seven of these went down permanently.

Six went down and enlargement recurred.

Two which were enlarged before operation did not subside.

Three were slightly enlarged and are now.

1. It will be seen from the above records that quite a large percentage of the children had enlarged glands, but many of these were only slightly swollen.*

2. Practically all of the glands giving trouble have been associated with tuberculous tonsils, or were tuberculous at the time of the removal of the tonsils.

3. That the removal of the tonsils worked in a beneficial manner is shown by the fact that often the swollen tuberculous glands subsided, though not always permanently.

4. That certain tuberculous glands are not associated with tuberculous tonsils is of especial interest. We believe that tubercle bacilli can travel to the glands without damage to the tonsil, and this accounts for the following facts (also for the higher percentage of tuberculous glands):

5. Glands once tuberculous, associated with tuberculous tonsils or not, may enlarge even after the tonsils have been removed.

6. We find tuberculous glands more often than we find tuberculous tonsils.

7. Even when there is a reappearance of the swelling, the glands show more of a tendency to heal and the individual to enjoy health after the tonsils have been removed.

In closing, I wish to call attention to a most noteworthy group of cases occurring in one family. They were referred to me by Professor Oliver, who made the pathologic examination of the tonsils and glands.

In the first case a girl aged 4 had much enlarged tonsils. There was no glandular enlargement of importance. The tonsils were removed and found to be tuberculous. The patient has been well since, with no enlargement of the glands. She has had diphtheria since. Her present condition is good.

In the second case a girl aged six had considerably enlarged glands. The tonsils were removed and showed definite tuberculosis; the glands later suppurated and were removed; they showed definite tubercles. The patient has had diphtheria since. Her present condition is good.

In the third case a baby aged 6 months had enlarged tonsils, but no glandular enlargement. The tonsils were removed and showed definite tubercles. The child had diphtheria one year later and following this succumbed to pneumonia. A grandmother living in the house had tuberculous laryngitis and the mother has fistula in ano.

The tonsils in these cases were quite large. A number of observers have said that tuberculosis is found more often in the small tonsil. We have found that to be the case in the majority of instances, but certainly not in all. One patient, for instance, had one large and one small tonsil. The larger was the tuberculous tonsil

corresponding to the much-enlarged glands; the other was free from tuberculosis.

Perhaps the most significant point brought out by this paper is the fact that out of the 160 cases reported, though there were sixty-eight cases with enlarged glands, fifty-seven of which went down, there was not a single case in which there was enlargement of the cervical glands subsequent to the removal of the tonsils, except in those few (eleven) cases in which the glands were already enlarged at the time of the tonsillectomy.

135 Stockton Street.

ABSTRACT OF DISCUSSION

DR. F. P. EMERSON, Boston: In an adenitis which is far advanced it would seem that the primary source of the trouble was in the tonsil and that the tonsil should be removed radically. Sometimes the glands are enlarged by toxemia and will go down if the primary focus is removed. If the tonsil is tuberculous there may be a subsequent enlargement of the gland that will require its removal later. But we should go on record as being opposed to the indiscriminate removal of the tonsil. In the East the reaction has not taken place and we are radically removing all of these tonsils. If they are tuberculous there is no question about their removal. If they contain a focus of infection we should remove them. But we should encourage the profession to require a reason for removal of the tonsil. The general practitioner is assuming to dictate to the specialist what to do. He will direct the patient to go to Dr. So-and-So, who will remove the tonsil by the new method, which is with the capsule intact. But I think in every case the question whether the tonsil should be removed should be kept in our hands and we should have the courage of our convictions and say, if the tonsil is enlarged only through hyperemia, that it need not come out necessarily, especially in a child, say, under 7 years of age.

REPORT OF PRIMARY INFECTION OF BULB SINUS AND JUGULAR IN A WOMAN OF FIFTY-SIX*

SHERMAN VOORHEES, M.D.

ELMIRA, N. Y.

History.—April 10, 1909, Mrs. H., a woman aged 56, was admitted to the surgical ward of the Arnot-Ogden Hospital. The patient said she had been in poor health for two months past but had kept to her work, which was that of a forewoman in a knitting mill. Two weeks prior to her admission to the hospital, I was asked by her physician to see her in consultation at her home, as she had been ill of influenza for about a week and was having severe pain in the right ear. On examining the ear I found a small perforation in the lower posterior quadrant through which some pus was flowing. The upper part of the drum was highly inflamed and bulging. Under local anesthesia I incised this freely and left the after-care of the patient to her physician. I did not see her again until she was sent in on my service at the hospital.

Examination.—On examining the ear I found a very free discharge and a good opening in the membrana tympani, which seemed adequate for the escape of pus. The patient told me that she had constant pain and the discharge had been very profuse. She complained that the pain was deep in the ear, and pressure over the tragus caused acute suffering. There was no tenderness over the mastoid or sagging of the wall of the canal, and no enlargement of lymphatics about the neck, although she complained that the pain sometimes radiated down to the clavicle. Her temperature on admission was 102.2 F. at 11 a. m., pulse 100, respiration 24. At 6 p. m., same day, the temperature reached 104.2 F., pulse 104 and respiration 28. Under sponging and free catharsis it dropped

* Read in the Section on Laryngology, Otology and Rhinology of the American Medical Association, at the Sixty-Second Annual Session, held at Los Angeles, June, 1911.

to 99.4 F. A culture showed streptococci in the discharge and a leukocyte count of 9,200, with 85 per cent. polynuclear.

Treatment and Course of Disease.—The ear was irrigated with mercuric chlorid solution at three-hour intervals, and as the patient complained of aching, I prescribed for her sodium salicylate. She seemed very septic; the tongue was heavily coated, with sordes on the teeth, the breath foul. She kept complaining of the severe pain deep in the ear. Her temperature was taken at two-hour intervals for the next three days and ran between 99 and 103 F. There was but little tenderness down the neck, although she complained of pain at this spot at times. The leukocyte count showed 11,000, with about the same polynuclear percentage. She had a chill, and at 9 p. m. on the fifth day her temperature reached 105, and the pain in the ear and down the neck was intensified. I decided then to operate, as I felt sure we had a primary involvement of the sinus and perhaps of the jugular also.

Operation.—I opened the mastoid, which contained no pus, but all the cells seemed greatly congested and bled freely as they were broken down. On reaching the bone overlying the lateral sinus, this was found perfectly healthy and gave no evidence of disease underneath. This was chiseled away rapidly and the sinus was found to be very dark and pulsated and seemed soggy to the touch. I uncovered this vessel well toward the torcula and nearly to the bulb, and had on completion of the dissection a large vessel bulging into the bony wound. I made a long incision into the sinus, but except for some oozing from around the clot there was no hemorrhage. On removing the thrombus from above, hemorrhage was quickly established, but removing the plug from below and using the curette gently, did not establish hemorrhage from that source. I then prepared the neck and opening it along the anterior sternocleidomastoid border and opening the carotid sheath found the thrombus extending well down the vein. I ligated the vein close to the clavicle and high up in the neck. All its branches were thrombosed and these were carefully dissected out, together with the vein. Hemorrhage was established from above on removal of the ligature, probably from the inferior petrosal. The wound was cleansed and a cigarette drain inserted, and the patient sent to the ward.

Postoperative History and Treatment.—The morning following, the temperature was 97.8 F., and the pulse 94; the temperature remained normal until the end of the second day when it rose to 101.4 F. and kept gradually rising until it reached 103.2. The wound was dressed and seemed to be doing finely. The thrombus having shown streptococci, I gave the patient antistreptococic serum. In a few hours the temperature dropped to 99.4 F., but by the end of the following day had reached 103.2 F. in the axilla, pulse 120. when I again gave another injection of the serum. At this time the patient became very restless and was delirious, the breath foul, sordes on the teeth and a badly furred tongue and the lips were cracked and sore. The urine up to this time had shown no evidence of kidney or bladder disease, but blood was noticed in the urine voided. The patient, when conscious, complained of pain in the right hip and radiating down the thigh and leg. On examination a large indurated area was found over the right hip which was very tender to touch but there were no points of softening. This thrombic area grew much more extensive and more hemorrhage occurred. Pus was present also in the urine and showed large numbers of streptococci. The patient was profoundly septic and only conscious part of the time. Control of bladder and bowels was soon lost and diarrhea supervened. The temperature ran between 102.4 and 104 F. and pulse 90 to 130, together with all symptoms of sepsis, and death took place on the nineteenth day after operation.

I do not believe that had I tied off the vein prior to opening the sinus it would have made any difference in the outcome, but think the woman had thrombus on admission and should have had early operation with tying off the vein first. The case is of interest on account of her age as it is rare to find primary thrombus at this time of life, and unusual also to have metastatic thrombus into the bladder.

408 North Main Street.

ABSTRACT OF DISCUSSION

DR. J. F. BARNHILL, Indianapolis: When a patient is violently taken, as was this one of Dr. Voorhees, with the discharge of a large amount of pus, it is certain that the pus is not coming solely from the middle ear, but from all the cavities leading into the ear. When we see such large quantities of pus or of serum, it almost certainly means an extension to the middle ear and its associated cavities. Dr. Voorhees was wise in sending the patient to the hospital, for it is difficult to make the diagnosis of intracranial complications in the home, unless one makes a hospital of the home. The diagnosis often escapes us because we are unable to get all the facts in the case, and unless a competent nurse is constantly present to observe and record them. Dr. Voorhees does not mention any chill or vomiting. Undoubtedly he would not have operated so early if he had not obtained so much help in the diagnosis. The affection of the bladder is a unique feature of the case. I have frequently seen affection of the limbs with abscesses. I have within a year had a case of sinus thrombosis complicated by a large abscess of the knee, in which the patient recovered. But the early diagnosis is very important in these cases.

DR. W. E. SAUER, St. Louis, Mo.: Some of the members will remember the patient I presented before the Section at St. Louis last year. He had never had a discharge from the ear at any time. The case was referred to me by a neurologist, who had been called in by the general practitioner. The patient had had no chill up to that time. The only thing which led us to suspect a phlebitis was the pain on pressure along the jugular. The patient was perfectly rational and gave no history of ear trouble. I did a paracentesis but nothing was found. An oculist was called in and some congestion of the disk was found. The next day he had a chill with a temperature of 103 F.; we operated and found the sinus filled with pus. There was an ultimate recovery.

DR. P. SCHOONMAKER, New York: A case came under my care at the New York Post-Graduate Hospital on Dec. 30, 1910, which this report brings to my mind. A German, aged 22, with a history of otitis media purulenta chronica since childhood; left ear healed when 10 years old; right ear continued to discharge until the time he presented himself at the hospital with a history of chills, fever, headache, pain and tenderness over the mastoid for three or four days. He presented a septic appearance, demanding immediate operation. This was done at once. Mastoid large, and external table sclerotic; cavity large; pneumatic cells necrotic and filled with foul-smelling pus and formative growth. The middle ear was in the same condition. I removed this and all necrotic bone, uncovering the dura and sinus over a large area. The sinus was thrombosed, necrotic and collapsed on cross-section, discharging pus. I was unable to remove the clot from the sinus and secure free bleeding. The patient was in a collapsed condition. Saline transfusion and stimulation were employed. The operation was stopped, the wound cleansed and dressed and the patient put to bed. There was a severe chill six hours later. Dec. 31, 1910, the pulse was 100, temperature 97 F., blood examination showed 30,400 white cells with 90 per cent. polynuclear cells. Patient was very septic; body edematous; wound cleaned and dressed. Jan. 1, 1911, a second chill followed by high temperatures; jugular vein resected; sinus cleaned, obtaining free bleeding from torcular end; sinus packed; pus seen coming from dura behind sinus; opening enlarged and about 2 ounces of pus evacuated from a brain abscess; cavity cleaned and packed with iodoform gauze; wound dressed daily. The patient improved for three days. On the sixth day bleeding occurred from the nose, which the house surgeon took to be an epistaxis and packed the nares. Death occurred a few hours later. Autopsy showed that the packing had been pushed out of the sinus, and that the hemorrhage had come from the sinus through the Eustachian tube, causing death.

DR. M. D. STEVENSON, Akron, Ohio: I would like to call attention to the importance attached to the microscopic examination of aural discharges in the New York Eye and Ear Infirmary. I learned last winter, from the bacteriolo-

gist there, and from Dr. Dench, that the presence in the discharge of the *Streptococcus mucosus capsulatus* is considered sufficient to justify early operation. The patient may have little or no pain, little fever, no increased polymorphonuclear count and very little, if any, leukocytosis, and yet if this germ is present there is likely to be early involvement of the sinus. After returning home I had my assistant examine the discharge more commonly than before and we discovered only one case. In that case the patient refused the operation suggested, but later I heard he had to have two operations performed. There were practically no other symptoms when I saw him, except the discharge.

DR. SHERMAN VOORHEES, Elmira, N. Y.: This was a primary infection of the bulb, undoubtedly, although I did not find any opening into the bulb. As the last speaker said, I am satisfied that the case came from infection of the bulb. There was absolutely no pus in the mastoid. Except for the cells being congested, there was no affection of the mastoid. I was, unfortunately, denied an autopsy. The diagnosis was made from the high temperature and the sudden drop. When we get a temperature of 105 to 106 F. I think we are justified in exploring to see if the sinus is not thrombosed. The infection must have come from the middle ear.

A CASE OF MYOSITIS OSSIFICANS PROGRESSIVA

ARTHUR R. ELLIOTT, M.D.
CHICAGO

The opportunity of recording the history of this patient I owe to the courtesy of Dr. Lucian D. Clark of Toledo, Ohio, who brought her to me for examination December 7, 1907.

History.—The patient, F. B., was a girl of 17. There had been no other case of myositis ossificans in the family. Both parents were of American birth, living and in good health; no lues, no tuberculosis; two other children were living and in good health, neither of them presenting any developmental anomalies. Birth of patient was non-instrumental and labor was neither prolonged nor difficult. She was breast-fed and did not suffer from any infantile diseases nor exanthemata. At the age of 1 year it was first noticed that the thumbs and great toes were malformed. The mother stated that shortly after the patient entered her second year lumps (nodes) were observed to form on the head. They were never due to injury and appeared and disappeared without apparent cause. They were tender to pressure but never suppurated. At intervals during the succeeding three years similar nodosities developed on the back and shoulders, coming and going, but never entirely absent. At the age of five torticollis appeared and persisted about six months, the muscles of the neck being hard and tender. Subsequently swellings appeared on the arms and legs, interfering greatly with voluntary movements, so that the patient could neither feed herself nor walk. These swellings were painful and tender and more or less ephemeral, shifting from place to place on the extremities, lumps or nodes showing from time to time on the back. These were very sore but never suppurated. Since the age of 5 the patient had never been able to freely abduct the arms and had never in her life been able to comb her hair. When she was about 5 years old her medical attendant discovered the existence of a valvular heart lesion. There had been no previous definite rheumatic or other acute infection. The general health had never been robust, but aside from the special disabilities of her disease there was an entire absence in her history of morbid incident until January, 1907, when she had typhoid fever. In July, 1907, Dr. Clark was consulted for stiffness of the jaws. The jaws were locked so that she was unable to masticate solid food and was compelled to subsist entirely on a liquid diet. The teeth could be separated but very slightly, the submaxillary region being filled with a hard bony deposit. Shortly after this development swellings were observed along

both sides of the thorax. These were hard and circumscribed but were not tender to pressure or painful, and were apparently not connected with the ribs. These gradually disappeared. In October, 1907, the arms became stiff and the right elbow joint developed a partial fibrous ankylosis, preventing voluntary movements of the joint and but slight manipulative freedom of the articulation. The right elbow remained uninvolved and freely movable. Gradually the left shoulder became stiff, movements of the left arm on the body being seriously restricted.

There had been little pain throughout, the only subjective discomfort being a certain soreness and tenderness on pressure and manipulation of the indurated areas during the early stage of their formation. The skin over involved areas had at times been suffused and slightly edematous. As the indurations grew, harder the soreness would disappear and when fully developed no tenderness was present.

Areas of involvement had been observed to disappear and there had been periods of arrest or quiescence during the progress of the disease. Soon or late, however, fresh areas of induration would make their appearance and run through a subacute progress to firm bony consistency causing much

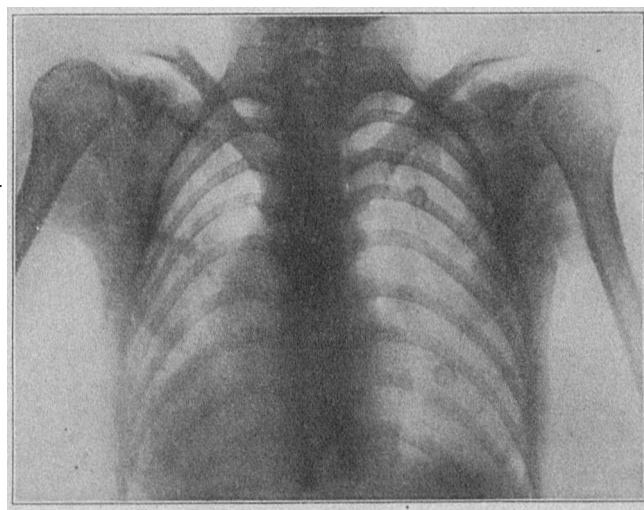


Fig. 1.—Bony induration of the submaxillary tissues; the lower jaw was displaced to one side and the incisor teeth did not articulate. The anterior and posterior muscles of the neck presented more or less induration; the mastoid end of the sterno-mastoid muscle was bony; a hard, insensitive node is shown on the superior border of the left scapular spine and small bony exostoses on the eighth, ninth and eleventh ribs near their posterior angles. A rod-shaped bony mass can be seen lying diagonally in the left pectoral region.

interference with muscular function. Repeated involvement of the same muscular area had taken place with final persistent hardness. There had been slight pyrexia at times. The patient's general health had always been unsatisfactory and her activities seriously compromised. Menses were regular since the twelfth year and somewhat profuse. There had been frequent epistaxis.

General Physical Examination.—The patient's stature was small, her face pale and round, her hair fine in texture and moderately abundant. The first point of interest to be remarked was the posture. The shoulders were rounded, the normal dorsal curve of the spine being increased. The head was bent forward, the chin flexed on the chest and there was but slight passive or voluntary mobility, either lateral or vertical, of the head. There was no hardness or induration of the masseters or other of the facial muscles. There were no cranial nodes. The teeth were well formed, even, with good enamel. The gums were soft and spongy at the teeth borders, bleeding easily, so that a tooth-brush could not be used. Maxillary movement was much restricted, so that it was possible to separate the teeth about an inch only, and the lower jaw was displaced from left to right so that the incisors did not approximate accurately. This restriction of movement and deformity was due to the presence of bony indura-