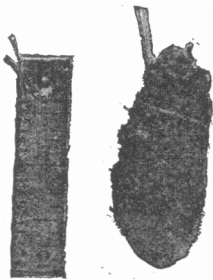


Family History.—Parents both deceased, mother dying of "black measles," father of "creeping palsy" at 73 years. One brother died at 45, from acute articular rheumatism, complicated by endopericarditis and subcutaneous rheumatic nodules. Another brother, though living, has had severe acute articular rheumatism. Among maternal ancestors there is a history of several instances of tuberculosis.

Previous History.—Had most of the diseases of childhood. At about 30 he had typho-malarial fever; at 41 had acute articular rheumatism. Four years ago he had a recurrence, and two years ago had the last attack. Dating from his first attack of acute articular rheumatism he has been a sufferer from tonsillitis, for many years annually, and at previous periods at longer intervals. Mr. M. always led an exemplary life, although exposed to an unusual degree to the elements. He uses neither alcoholic stimulants nor tobacco, and tea and coffee only sparingly. Very little attention has been paid, however, to either systematic physical exercise or diet.

The present trouble began insidiously three or four months ago, with an occasional intimation of pain and irritation in the neighborhood of the right tonsil and also in a corresponding portion of the neck of the same side; this was fugitive but tended constantly to recur, and during the last three weeks of his indisposition, the local disturbance became markedly aggravated. There was intense pain on deglutition so that swallowing was exceedingly difficult, and, curiously enough, solids were more easily ingested than fluids. The local physician prescribed flaxseed poultices with a view to relieving the localized pain and discomfort, and two days following the commencement of their use, the patient became aware of the presence of a hard foreign body which projected into the throat from the same side. This immediately occasioned severe coughing, and



with the aid of frantic voluntary efforts the large mass of calcareous hardness was soon dislodged. There was practically no bleeding at the time of or following the expulsion of the specimen. A local examination made three months after the tonsillolith had been expelled (the time at which I first saw the patient) revealed on palpation with the finger tip, a slight, though distinct, depression between the palatine arches. Very little change from the appearance of the opposite side could be detected with the naked eye. The weight of the specimen is 189 grains; and it measures one and seven-eighths inches in its greatest diameter (see illustration). Chemical examination of the specimen was not undertaken for fear of destroying its contour.

While the formation of tonsillar concretions is a not uncommon condition, often found in hypertrophied tonsils and at operation, the termination in spontaneous expulsion of very large concretions, comparatively speaking, is of rare occurrence. In a vast majority of cases they are small or of medium size, and give rise to no symptoms, but when, as in my case, they attain to enormous dimensions, they produce irritation and even ulceration in the surrounding tissue. The most prominent symptom of this condition is dysphagia, which was the principal complaint of my patient. My own specimen is chiefly interesting on account of its huge size.

Dr. Chevalier Jackson¹ exhibited a tonsillolith before the American Laryngological, Rhinological and Oto-

logical Society, May 30, 1904. It weighed 147 grains, and the patient gave the history of having, ten years previously, expectorated a stone, which was about the size of a split pea, originating from the same structure. Girou² records an instance of what he terms a voluminous calculus of the tonsil, which, however, weighed but 2 grams, 50 milligrams.

So far as I have been able to determine from an examination of the literature, no case in which the tonsillolith had attained to the size of my specimen has been recorded. The mode of formation of these calcareous concretions is well understood; they are the result of calcareous degeneration of retained tonsillar secretion. Entering into their composition are principally calcium carbonate and phosphate. The *Leptothrix buccalis* has been found within tonsilloliths, but this organism is too commonly found in the mouths of healthy individuals to permit the conclusion that it has etiologic significance.

DIPHThERIA CONTRACTED FROM A DOG.

F. H. BRANDT, M.D.

BOISE, IDAHO.

It is well known that diphtheria may be transmitted by domestic animals by way of fur, particularly by animals coming in close contact with people during attacks of diphtheria. Having traced the source of infection to the throat of a dog, I am prompted to report the following cases:

CASE 1.—History.—Jan. 14, 1908, I was called to attend a girl, aged 11, who complained of having pain in the neck and right arm.

Examination.—Temperature and pulse were normal; the throat showed some congestion, with two very small blisters on the left anterior pillar, but no other deposit. The next day the temperature was 99.5 F. and pulse 110, somewhat irregular. Throat inspection showed two white spots where the blisters had been the day before, and four other spots on the left tonsil. The glands at the angle of the jaw were enlarged, more so on the left side. A smear was made at once for bacteriologic examination, which showed many Klebs-Loeffler bacilli, which responded to both the Loeffler and Gram stains.

Treatment and Result.—Five thousand units of concentrated antitoxin were given. The temperature that night went up to 101.5 F. Ten hours later, 3,000 units more were given, as not enough effect was seen from the first dose. The case cleared up rapidly after this, and the throat was clean on the fourth day. Convalescence was uneventful, with the exception of some galloping heart action about two weeks later, which readily responded to rest and medication.

Remarks.—An immunizing dose of antitoxin was given to the other members of the family. The father complained of a sore throat at the time, but the condition cleared up in a day or two. Only the mother was quarantined with the sick girl, the suite of rooms being entirely separate from the rest of the house. The younger daughter was properly cleansed and her wearing apparel fumigated, and she was allowed to live in the other part of the house on account of just having been released from a quarantine for chicken-pox, of which she had quite a severe form. Two weeks after the last quarantine, fumigation was again carried out by the board of health. The day following, this family moved into their new house, freshly calcimined and painted, and owing to my advice, this house was fumigated as a preventive measure.

CASE 2.—History.—February 8, three and a half weeks after the beginning of the last case of diphtheria, I was called to see the other girl, aged 7, who had suddenly been taken ill with fever, nausea and vomiting.

1. Trans. Amer. Laryng. and Otol. Soc., 1904.

2. Bull. et Mem. Soc. Anat. Paris, 1905, lxxx.

Examination.—Temperature, 103 F.; pulse, 110. The throat was congested, but there were no deposits. There was much vomiting, of a bilious character, and with this tenderness over the abdomen and some tympanites. This attack was so similar to some previous intestinal disturbance that calomel and salts were given, and the further development of the case was watched. The next morning the patient felt better; temperature was 101 F. and the pulse was better. The throat, however, showed a membrane over the left tonsil, with glandular enlargements, which left no doubt in my mind that we had to do with another case of diphtheria, and this theory was corroborated by bacteriologic examination.

Treatment.—Six thousand units of antitoxin were given and caused a rapid, partial clearing. An additional spot was found on the anterior pillar on the third morning when I gave 3,000 units more—a dose which proved sufficient.

Being at a loss to know the origin of this case, inquiries were made and a smear was made from the other girl's throat, in which I could not detect diphtheria bacilli. I was then told that their dog, a large Scotch collie, had been taken ill five or six days previous to the first girl's illness, with a sore throat so severe that he could hardly utter a sound and swallowing was distinctly difficult. After a few more days locomotion became very difficult and they would find him lying around the house, apparently unable to move, so they chained him up. Medicine was administered to the dog in the form of pills, and given mostly by the older girl until she took sick. After moving to the new house this dog was the constant companion of the girls, being in the house with them most of the time.

Then I made several smears from the dog's throat for a bacteriologic examination and found a number of colonies of bacilli corresponding to the organisms found in the girl's throat. This was repeated the next day, with similar results. On this evidence we had the dog killed by the health department, at which time I laid open the throat of the animal and secured cultures on blood serum from six different parts of the throat. Eight hours later a bacteriologic examination was made of the still invisible growth, which showed an almost pure culture of the same organism found before. These bacilli stained both by Loeffler's and Gram's methods. After twenty-four hours there was a distinctly visible growth. Little granules along the streaks, slightly raised at the edges, of a cream color, with a glistening surface. A bouillon culture was made from this and incubated for forty-eight hours. At this time a slight cloudiness was seen, with a flocculent deposit at the bottom. Two guinea-pigs were inoculated, to the amount of 1/200 of their body weight. Four hours later I gave one of them 2,000 units of concentrated antitoxin for control purposes. The second pig showed some depression after the last injection, but was perfectly well the next morning and remained so until it was killed for postmortem examination. The other pig showed signs of sickness on the third day, became worse on the fourth and fifth days, and on the next two days could hardly move. On the eighth day it showed some improvement, so I decided to make a postmortem examination of both of the animals.

Pig No. 1, which received only a culture, showed a patch somewhat resembling a diphtheritic membrane an inch and a half in diameter, with the center slightly liquefied at the site of injection. Surrounding this could be seen some injection of blood vessels. Bacterial examination of this patch showed again the Klebs-Loeffler bacilli in large numbers but of small size. There were also present large numbers of leucocytes, a majority of them having undergone degenerative changes.

Other macroscopic changes could not be found in the liver, spleen, kidneys or in the intestines.

Pig No. 2 receiving both the culture and antitoxin, did not show a membrane, but, instead, a fibrosis an inch in diameter, with reactive inflammations, was found at the place of injection. No other changes could be made out. Bacteriologic examination of the fibrous patch gave negative findings.

CONCLUSIONS.

1. From the history of the dog there seems to be no doubt that he had diphtheria, accompanied by partial paralysis.

2. The first case probably came from the dog, coming on a short time after the beginning of the dog's illness. The possibility of the dog contracting the disease from the first case is impossible, since the dog was not allowed in the house after the girl took sick, and a strict quarantine was kept.

3. The second girl contracted the disease from the dog, being with him most of the time, and in spite of having received 1,000 units of antitoxin three and a half weeks before.

4. That the infection might have come from the other girl's throat is hardly possible, since strict gargling was kept up, and a bacteriologic examination at the time of the second girl's illness showed absence of diphtheria bacilli.

5. Finding the bacilli in the dog's throat, obtaining a blood serum culture from this, furthermore a bouillon culture, injecting this into two guinea-pigs, producing a typical membrane in the one and preventing the formation of a membrane in the other by the use of antitoxin, leads me to believe that the dog was the source of these two cases of diphtheria.

Influence of the Eye on the Ear.—Rollet was examining the eyes of a patient when the latter suddenly complained of buzzing in both ears as the light from the ophthalmoscope reached the fundus. This occurred on several repetitions of the ophthalmoscopic examination, the ears otherwise and at other times being apparently normal. He summarizes also some cases from the literature in which deafness was observed in connection with inflammation of the eye or with muscular contraction or with a luminous impression. In his communication on the subject to the *Revue Hebdomadaire de Laryngologie*, December 28, he gives examples to illustrate the close connection between the organs of sight and hearing. A lesion of the eye, disturbance in accommodation, or mere reduction of visual acuity may induce a reflex deafness from a phenomenon of inhibition or a reflex irritation manifested in vertigo and buzzing, with or without more or less deafness. These phenomena of irritation are comparable to the sympathetic irritation which precedes the development of sympathetic ophthalmia. The experiences related also seem to indicate that the muscle of the stapes may contract simultaneously with a contraction of the orbicularis of the lids, and thus induce tinnitus. His own case shows that a luminous impression may induce a sensation of sound in the superior centers, a phenomenon exactly comparable to that known as "colored audition."

The Patient's Confidence.—It is impossible to write out a formula of conduct and attainment that will insure success in the acquirement and permanent possession of the confidences of patients and their friends. There are unlettered physicians exercising unethical conduct toward both patients and fellow practitioners who acquire easily and hold strangely enough the unwavering faith of a large patronage, but these are very few in number. The explanation of the success of such men is business acumen and strong personality to inspire and retain confidence along with the doing of many things necessary and unnecessary.—*Leucocyte.*