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IN MUMPS.

WITH REPORT OF EIGHT CASES.

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AURAL COMPLICATIONS IN MUMPS.

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BY JAMES L. MINOR, M. D.,

MEMPHIS, TENN.

PAROTIDITIS attracts little attention as a rule. The disease demands the interest of the general practitioner chiefly through its sequelæ; and as the aurist is called in for only one of the rarer forms of these, and usually after it is well pronounced and established, the opportunities for studying its aural complications are meagre.

Thus far, it has been established that a small proportion of those attacked with mumps suffer also from ear disease, which may cause simple impairment of hearing, but usually absolute and permanent deafness in one or both ears. It usually comes on between the fourth and eighth days, and ordinarily declares itself by tinnitus, impaired hearing, dizziness, nausea, and finally labyrinthine deafness. Extension of the disease from the parotid to the ear is variously attributed to metastasis; direct extension of the inflammatory process through fissures adjacent to the inner ear; from the outer to the middle ear, and thence to the labyrinth; or by way of the Eustachian tubes.



It is rare. Dr. Roosa found it in only ten cases out of five thousand ear patients treated at his office.

I have collected the notes of eight cases—six seen by me, and two unreported cases, kindly placed at my disposal, from the notebooks of Dr. H. D. Noyes, of New York.

A striking feature is the frequency with which the left ear is attacked. Of my cases, the left ear was affected in five, the right in one, and both in two. And I notice that Dr. Roosa's cases show a decided predilection for the left also—the left, six; the right, three; both, one. This may be a mere coincidence; but I desire to call attention to it because the general practitioner has noticed that when the testicle is involved in mumps it is most frequently the right. I may state that in all of my cases both parotids were involved. In none was the testicle affected.

The most important points brought out by a study of my notes can be illustrated by grouping the cases as follows:

1. Those in which the ear trouble began and ended in the middle ear, three—Cases II, III, VII.

2. Those in which it began in the middle ear and extended to the inner ear, one—Case I.

3. Those in which it began and remained in the inner ear, three—Cases V, VI, VIII—and in none of these did there seem to be involvement of the semicircular canals, the cochlea alone being affected.

4. Those in which it began in the inner ear, the semicircular canals, and extended first to the middle ear and later to the cochlea, one—Case IV.

The frequent involvement of the middle ear certainly suggests the probability of benefit from treatment.

And if these cases were promptly and intelligently treated, instead of being consigned at once to the category of incurable affections, a large proportion of them would doubtless recover their hearing.

CASE I.—Mr. M. C., aged thirty-five years, seen September 1, 1881; stout, healthy man; mumps.

June 6, 1881.—Both parotids involved. No orchitis. On June 9th, sense of fullness, with tinnitus, in the *left ear*, relieved by drawing auricle from head. This condition continued for a week, when dizziness appeared, and, after two days, difficult locomotion, with tendency to fall back and to the left. The dizziness and disturbance of equilibrium, after remaining some days, gradually grew less, and were almost absent when he came to me.

I found the right ear normal. The left ear was deaf to all sounds—watch, voice, and tuning fork. Aside from slight retraction and a little dullness of the drums—about equally marked in each ear—nothing else could be found. He was treated a few times, and passed from observation. I saw this gentleman eight years later and his condition was the same.

In this case the trouble evidently began in the middle ear, and probably extended thence to the inner ear. Early treatment would probably have prevented permanent effects.

CASE II.—A. B., a man, aged twenty-eight years, had a severe attack of mumps in January, 1883. All of the salivary glands were involved, and constitutional disturbance was considerable. No orchitis. On the third day, earache, with hard hearing and tinnitus, on the left side. I saw him a few hours later, and found injection around the entire periphery of the drum membrane and along the malleus handle; light spot indistinctly visible; no bulging (acute catarrh of middle ear); and hearing reduced to one twelfth. Politzer's inflation was practised,

with some relief, and the hot-water douche was used with much benefit. The next day the right ear became affected in the same manner, and was treated similarly.

Gradual improvement set in and resulted in a perfect cure in about one week.

This case was one of acute catarrh of the middle ear, doubtless due to direct extension of inflammation from the throat. Complete recovery was probably due to prompt recognition of the difficulty, and judicious treatment, which prevented the disease from extending to the deeper structures.

CASE III.—Miss A., aged seventeen years; mumps; February 9, 1891. Both parotids involved; not much general disturbance. On third day, pain, impaired hearing, and tinnitus in both ears. I found a slight amount of pus in each ear, removal of which revealed a small perforation in each drum membrane. Hearing, $\frac{1}{2}$ in right, $\frac{6}{5}$ in left. Politzer's inflation and douching the ears with hot antiseptic solution daily resulted in a cure in ten days.

This was a case of acute suppurative inflammation of the middle ear, also caused by direct extension of the disease, and the early treatment may have prevented involvement of deeper structures.

CASE IV.—Mr. B., aged nineteen years (referred to me by Dr. M. B. Herman, of Memphis), seen May 18, 1894. Parotiditis, both sides, five weeks before. The attack was as follows: While at work, he became giddy and sick at the stomach; went home and to bed. Next day, he was too dizzy to get up; could not lie on the left side because dizziness was increased and nausea produced; the next day both parotids were inflamed and enlarged. He remained in bed four days longer. Then he got up with assistance and went to his office, took cold, and noticed for the first time that his hearing was dull on the

left side; this dullness of hearing was relieved by pulling on the auricle so as to straighten the canal. The next day dull hearing came on again, to be temporarily relieved by pulling on the ear. After lasting an hour or so it passed off entirely. This occurred daily for six days, and then the deafness became complete and permanent—remaining in the condition which existed when I first saw him. Complains of absolute deafness in the left ear (tinnitus), and slight dizziness when sudden movements are made. The appearances of the drum membrane are normal. Tuning fork heard only in right ear. At times it seems that he hears loud sounds in the bad ear, but that is uncertain. Treatment advised, but not carried out.

This case is interesting in that the process involved first the inner and later the middle ear. Whether the disease extended from the former to the latter, or directly from the throat, can not be stated; but if treatment for the middle ear had been promptly instituted, I believe the hearing would have been preserved.

CASE V.—Miss W., aged fifteen years (referred to me by Dr. Isom, of Holly Springs, Mississippi), seen May 29, 1894. She had double parotiditis eighteen months ago, and has since been deaf in the left ear. There was no dizziness, nausea, or other symptom of labyrinthine involvement. Right ear normal. Left ear normal to all appearances, but deaf, absolutely, to all sounds—tuning fork and others. This case was simply one of nerve deafness when I saw it. How it began, it is impossible to say.

Case VI I saw with my associate, Dr. E. C. Ellett. The patient was one of Dr. John M. Maury's, and through his courtesy the following notes were obtained:

Mrs. A., widow, white, aged twenty-eight years, was taken on February 28th with mumps, the left parotid swelling first, the right five days later.

There were no unusual features, except that the pain

on the left side was severe enough to necessitate an opiate for relief.

March 12th.—Though there was still some swelling on the left side, she was feeling well, and on this day moved across the city. At 10 P. M. on the 12th, while standing, she suddenly became faint, lost consciousness, and fell to the floor.

Shortly after being put to bed she regained consciousness and vomited. Temperature, 101° F.; pulse, 76 and weak.

Nausea continued for ten days, though there was no more vomiting.

13th.—Feeling well but weak. Temperature in the mouth, 97° F.; pulse, 70.

On the 13th, at 7 P. M., while in bed, she again suddenly felt the extreme weakness, but did not lose consciousness, and, though more nauseated than during the day, she did not vomit. At this time her temperature was 96° F. in the mouth; pulse, 54. This attack lasted three hours.

April 18th.—Since the second attack she has been entirely deaf in the left ear.

For a week there seemed to be a loss of muscular sense in the muscles controlling the head—*i. e.*, on rising up she would express herself as “not knowing just where her head was,” though motion was in no way limited.

Her pulse was below normal in frequency for ten days, gradually reaching 70, and for the next week ranging between 76 and 90.

Now, six weeks since the first attack, her temperature has only on two occasions reached 98.5°, and at one time was as low as 95.5°.

Since the first attack she has constantly had a roaring in the left ear, and has at all times complained of a tired aching in the spine. She has never at any time had vertigo.

Examination of the ears showed the right one to be normal in every respect. The left was deaf, absolutely,

to all sounds. The drum membrane was somewhat retracted and a trifle thickened, but did not depart greatly from health.

In this case the trouble was in the labyrinth. Whether the condition of the middle ear had any connection with the deeper structures or with the parotids can not be stated.

CASE VII.—Mrs. W. P. B., aged thirty years (page 368, Dr. H. D. Noyes's notebook). Parotiditis at ten years, leaving trouble with the *left* ear, which has existed since. Has nasopharyngeal catarrh, and her hearing is worse with colds. Membrana tympani thick and retracted. Hearing voice brought up to two inches by Politzer. Right ear, hearing normal, though membrane is a little sunken.

This case was purely one of involvement of the middle ear from beginning to end.

CASE VIII.—H. W., aged thirteen years (page 405, notebook of Dr. H. D. Noyes). Mumps at two years, no ear trouble. Again, severe attack of mumps at eleven years; was delirious for a short time, and on recovery was deaf in the right ear, without tinnitus, dizziness, or other symptom. Is a nervous, weak child. Had epileptoid convulsions when eight years old, and when nine, had a fall, striking on the head. Sudden rising from bed causes headache, and sometimes dizziness. No disturbance of locomotion. Hearing hard to measure; but probably hears nothing in the right ear, and normally in the left. The membrana tympani is a little opaque on the left, opaque and sunken on the right side.

This case was one which began and ended in the inner ear.

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FRANK P. FOSTER, M.D.

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