

Lederman (M. D.)

Diffuse External Otitis following  
the Careless Use of Carbolic  
Acid.

BY

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## DIFFUSE EXTERNAL OTITIS

FOLLOWING THE CARELESS USE OF CARBOLIC ACID.

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EVERY now and then an individual who has followed the directions of a friend in an attempt to cure some ailment by home treatment appears before us as an animate illustration of a "horrible example." The case I herewith report is but another instance of this oft-repeated practice, but fortunately for my patient the result has been decidedly better than one would have anticipated from the appearance of the parts at the first examination.

It is a common practice among the laity to suggest domestic remedies for the relief of itching or painful ears. Among the remedial agents usually recommended may be mentioned candle or goose grease, sweet oil and laudanum, baked onions, spirits of camphor, and ammonia. These are but a few of the many irritants employed in the household medication of this sensitive and delicate organ. As medical science advances our *fin-de-siècle* laymen become more learnedly self-assertive and generously impart their

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limited knowledge more authoritatively. To this fact I am enabled to report the history of an unusual case.

Julia B., aged twenty-three years, married, presented herself at my clinic, Manhattan Eye and Ear Hospital, on Monday, December 17, 1894. She stated that for four years her ears had annoyed her at different periods by an intense itching sensation which extended into the external auditory canals. Up to within a few days of the above date she was in the habit of scratching the pruritic surface with the head of a pin. This procedure gave relief, but usually brought on a watery discharge, followed by the formation of crusts. When the symptoms returned she resorted to this palliative manipulation. No pus was ever observed coming from either ear, nor was pain experienced at any time. The patient's discomfort was, no doubt, due to the ordinary form of an aural eczema. Her hearing was always good.

On December 15, 1894, the itching resisted the usual treatment, and, following the advice of a friend, Mrs. B. poured some pure carbolic acid into a glass of water and syringed the mixture into both ears. The left ear causing the most distress, she subjected it to six applications of the remedy on Saturday and one on Sunday. But one injection was thrown into the right ear. When asked how much carbolic acid was used to each glassful of water, the young woman remarked that she had not measured the quantity, but thought that it would fill two teaspoons. Further inquiry elicited the information that the medicine was not mixed with the water, so that the acid floated on top, and with each initial injection pure carbolic acid was the remedy applied. Although this treatment was employed every two hours, by means of a small glass syringe, it is astonishing that no permanent impairment of hearing resulted.

Immediately after the first syringing the patient felt a tingling in her ears, but pain caused no discomfort until the evening of the first day (Saturday). During the night her rest was continually disturbed on account of its severity. Externally, the parts had swollen considerably, and were quite sensitive to

pressure. The hearing now began to fail; those attending her had to speak in louder tones, otherwise their conversation was not audible.

*Sunday, December 16, 1894.*—Mrs. B. could not hear at all with the left ear, but heard the voice through the right one. She noticed that during the day her urine was darker in color than normal. Muscæ volitantes appeared and the vision was perceptibly affected. Poultices had been applied, and though the pain was somewhat alleviated, their application no doubt infected the excoriated surfaces, as the appearance of the tissues indicated when the case first came under my care.

*17th.*—Two days after the heroic treatment was the date of my first examination. Mrs. B.'s face presented a peculiar puffy aspect, due to a serous infiltration, which had evidently originated at the pinnæ, and had extended over the malar and external infraorbital regions. The conjunctiva of both eyes was much injected; diffuse swelling of the auricles existed to such a degree as to almost obliterate anatomical relations. On the left side it was especially prominent in front of the tragus, and could be distinctly outlined over the angle of the jaw. Pressure over the mastoid caused pitting, but no sensitive areas were discovered. With the exception of the mastoid and cervical œdema, the same condition of affairs, somewhat modified, existed on the other side. Serum filled the fossæ of the auricles and exuded from beneath a pseudo-membrane which covered the tragi, antitragi, and scaphoid fossæ. Both external openings of the auditory canals were masked by the œdema. An unpleasant odor emanated from the injured structures, and as the membranous deposit aroused suspicion a culture tube was inoculated. Testing with the tuning fork permitted the exclusion of internal ear disease. The watch could not be heard with either ear, but patient distinguished the voice when spoken to in loud tones. From the history of the case, together with the appearance of the parts, a diagnosis of traumatic diffuse external otitis was made, subject to the report of the bacteriological examination, which latter excluded any doubt. Bearing in mind the possibility of an atresia of the canal as a sequela, a guarded prognosis was given.

*19th.*—Much pain was experienced during the night, which was relieved by hourly doses of codeine, an eighth of a grain. Owing to the sensitiveness of the cauterized surfaces, the supine position had to be assumed during attempts at rest. Sloughing was anticipated on account of the unhealthy appearance of the affected areas and the disagreeable odor which still persisted. Labarraque's solution as deodorizer was ordered. No further medication was deemed necessary.

*21st.*—Examination at this visit showed decided improvement. The swelling of the face and over the mastoid was almost gone. Sleep was not disturbed during the two nights passed, and pain only appeared when the parts were dressed. Furthermore, the offensive odor was not discernible. Both ears presented a more normal state, as the fossæ with their boundaries could now be plainly seen, though some œdema, with excoriations of the tragi and antitragi, still existed. Externally, on the left side, the orifice of the auditory meatus was distinguishable, but no view of the membrana tympani could be obtained, as the tumefaction of the canal had not sufficiently receded. Except for some swelling of the tragus, with denudation of the dermoid coat, the auricle of the right side was in good condition. Even here the lumen of the meatus was still encroached upon by the infiltration, so that the membrana tympani could not be definitely outlined. H. D., L. E., W.  $\frac{1}{8}$ g; H. D., R. E., W.  $\frac{1}{8}$ g.

As matters were progressing favorably the chlorinated soda solution was continued. Saw patient every other day until December 31st. At these visits politizerization was practiced. During the interim the œdema gradually disappeared, so that the external structures had again assumed their usual proportions. Patches of desquamated epithelium were seen in the scaphoid fossæ and canals. Both drums were now visible, thickened and retracted, with the cone of light shortened. Conversation carried on in ordinary tones was readily appreciated. H. D., L. E., W.,  $\frac{2}{8}$ g; H. D., R. E., W.,  $\frac{2}{8}$ g. An ointment of tar and oxide of zinc was prescribed for the pruritus, which again returned. Arsenic and iron were given internally. Inflation of the middle ear was continued regularly.

*January 25, 1895.*—Mrs. B. informed me that she heard and felt as well as ever. H. D., both ears, watch, five feet. The raw surfaces were now healed, leaving traces of their previous existence. No narrowing of either canal was observed. Inspection found no change in the drum membranes from the last examination. It is astonishing that no suppurative disease of the middle ear complicated the external manifestations. Fortunately for my patient, no permanent disturbance of her auditory perception resulted. The ocular symptoms, together with the cloudy urine, demonstrate that absorption of the acid had undoubtedly taken place.

When we consider the marked disturbance following the careless use of an antiseptic in this instance, it behooves us to be very explicit in giving directions to patients and furthermore impresses us with the importance of decidedly emphasizing the dangers lurking in the generous suggestions of lay friends.

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FRANK P. FOSTER, M.D.

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