

## Medical Matters.

### EAR COMPLICATIONS IN INFLUENZA.

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The *British Medical Journal* for February 25th, 1899, remarked that in the then present epidemic of influenza, the most common complications were pneumonia and otitis, "the latter being particularly frequent." Since the otitis of influenza is often of a rapidly destructive type, requiring prompt treatment, a few remarks upon it and its

varieties may not come amiss to those who come much in contact with influenza.

Influenza may attack an ear hitherto normal or it may light up old troubles which have been for some time dormant. Like other middle-ear inflammations the influenzal forms may be *non-suppurative* or *suppurative*. The latter are much more common than the former, as the inflammation is usually so intense that suppuration is inevitable. When, however, suppuration does not occur there often remains a persistent tinnitus which either disappears after several months, or is the forerunner of a middle-ear catarrh with progressive deafness. I have found influenza assigned as the cause of a fair percentage of cases of middle-ear sclerosis, the latter condition being either due primarily to the influenza or following an acute non-suppurative influenzal otitis. I do not, however, remember to have seen a single case of sclerosis traceable to influenza in which there was not also present some nasal or naso-pharyngeal condition which would have acted at the least as a predisposing cause.

The acute otitis of influenza occurs in two types—(1) that coming on at the same time as the primary disease, and (2) that coming on some seven to ten days later. The symptoms of both types are substantially the same, only that in the former the pain is more intermittent and severe, the duration of the deafness less, and the general prostration greater than in the latter.

The difference between an ordinary attack of acute otitis media and one due to influenza is marked, and cannot fail to strike those who have much experience of the two diseases. In an influenzal otitis the pain is much more sudden in its onset, and has more of a neuralgic character; it is distinctly intermittent, and its paroxysms are more frequent and last longer during the night. Perforation of the membrana tympani (operative or natural) gives scarcely any relief to the pain, the intensity of which does not correspond to the objective symptoms. The deafness is more gradual in onset than in simple otitis media, but becomes

well marked and lasts three or four weeks, or longer. The nervous prostration is great, and there is marked insomnia.

On examination the membrana tympani appears swollen and intensely congested, with, very frequently, punctate or diffused ecchymoses. When perforation occurs it will be found that there is great swelling of the tympanic lining membrane with a special tendency to the formation of granulations and polypi of the flabby, œdematous type. This great tumidity of the mucous membrane explains the marked deafness and the want of relief by Politzerisation. The discharge which follows perforation may be rarely abundant and purulent, but is more usually scanty, and may remain sero sanguinolent during its whole continuance.

These acute suppurative inflammations of the middle ear occurring during influenza may take one of three forms:—

1. The distinctive type of hæmorrhagic otitis, of which some description has just been given.
2. A primary mastoiditis, due apparently to direct infection and not to extension.
3. A rapid caries and necrosis of the ossicles or mastoid.

Probably all these forms are due to the direct influence of Pfeiffer's bacillus.

The second type enumerated is a very important one, needing, as it does, prompt treatment on account of the tendency to rapid caries and necrosis, with consequent cranial or sinus complications. According to Politzer, the form of mastoid process most frequently affected is the "pneumatic," in which there are numerous cells communicating with each other and the antrum by very small openings. These tiny communications become closed by the inflammatory swelling, and a pent-up collection of pus results. Politzer found these abscesses in the middle or inferior segment of the vertical portion of the process, notably in the superficial cells situated under the cortical layer of bone. In most cases the tympanic suppuration had already ruptured the membrane, otherwise the ordinary symptoms of that condition were present. It must, however, be borne in mind that the invasion of the mastoid—antrum or cortical cells—by Pfeiffer's bacillus is not always preceded by a discharge at the external meatus, and therefore pain in and tenderness over the mastoid should at once be the indication for a careful examination of the tympanic cavity.

The usual symptoms observed in influenzal mastoiditis are as follows:—Local lancinating pain of a radiating character, tenderness on pressure or percussion in the mastoid, local heat, general rise of temperature. There may be bulging of the tympanic membrane and of the posterior superior meatal wall.

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