OTITIC MENINGISM.*

By Mr T. B. LAYTON.

At the *Congrès Français de Médecine Interne* held at Lyons in October 1894, M. M. Dupre, of Paris, read a note on a condition which he called Meningism.[1] He applied the term to "The syndrome of symptoms aroused by the irritation (souffance) of the meningo-cortical regions (zones méningo-corticales) and independent of any anatomico-pathological change (alteration)." Referring to this communication in Allbutt and Rolleston's *System of Medicine*,[2] Dr F. G. Batten says: "Although unendowed with a name this condition has been long recognised as occurring, especially in children, during the specific fevers or almost any febrile condition." He describes the clinical features as being those of meningitis, namely, headache, vomiting, twitching and convulsions, retraction of the head, squint and rigidity of the trunk and limbs. All the concomitant symptoms of meningitis—slow pulse, irregular respiration, tache—may be present." The prognosis is described as good. The diagnosis depends upon lumbar puncture. "The fluid obtained by lumbar puncture may flow out under pressure, but is perfectly normal, and free from all cells and organisms."

When the physician is dealing with this type of case, he has not yet decided whether the symptoms are due merely to toxins in the fluid, or whether this is the earliest stage of invasion by micro-organisms. In either circumstance the route to the cerebrospinal fluid is a hæmatogenous one. Is the same condition present in a localised infection about the meninges, such as that met with in our ear cases?

My object in these remarks is to urge that there is no such condition as "meningism" under these circumstances; and that so-called "meningism" should be regarded as the earliest stage of meningitis. In any ear case, if the patient's symptoms went so far as those I have quoted, we should call the condition a definite meningitis. If we did lumbar puncture in such a case the fluid would certainly not be perfectly normal; it would show cellular changes at least, even if it did not show the presence of organisms.

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I maintain, however, that there is an earlier stage than this, and that the only symptom of any importance to the ear surgeon is that of neck rigidity. By the time that there are manifestations in the abdominal or other reflexes, the case has passed into a stage in which the chances of recovery are very small, despite even such brilliant results as Mr Jenkins has achieved. Therefore, in my opinion, whenever there is rigidity of the neck, in a case of otitis, the condition should not be described as meningism, but should be regarded as meningitis, and lumbar puncture should not be done. By lumbar puncture such organisms as have already invaded the cerebrospinal cavity are sucked from the region of the ear down to the region of the foramen magnum, and thus the infection is distributed, and the patient's chances of recovery are reduced. It is analogous to pounding the right iliac fossa with a heavy fist in a case of appendicitis in which there is a suspicion of early, but not yet localised, peritonitis.

Some years ago I was called in to such a case by a physician who wished me to perform a mastoid operation; I did not think there was any evidence of mastoiditis. I did a paracentesis, and the child recovered, but I do not think I was right; it was taking too great a risk. I believe that the mastoid should always be opened.

The first of the patients whom I showed to-day was a small boy with double acute otitis media and a rigid neck. I opened each mastoid as quickly as I could. If there was any change in the bone, it was only hyperæmia of the osseous tissue. You can call such operation post-aural drainage if you like, rather than an attempt to eradicate the diseased bone.

The next case was that of a child who had measles and had been very ill with that disease. The child had double otitis media, with pus pouring from each ear. There was a suspicion of tenderness over each mastoid, and we discussed whether we should do a mastoid operation or not. We lost twenty-four hours over that case because I argued that there was no need for immediate operation, and that if we waited for twenty-four—or even forty-eight—hours we might know on which side there was acute mastoiditis and so avoid a double operation. During the next twenty-four hours, rigidity of the neck set in. We found pus in each mastoid bone. We did not do lumbar puncture. In such cases I believe in repeated douching of the wound. In this case we had thoroughly laid open the wound

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and we douched away the débris of bone and blood-clot with a quart of saline or more on each side. We kept up the same procedure for three or four days afterwards. I do not know whether that after-treatment made any difference, but I think it is a useful line along which to go.

The third case produced evidence that the so-called "meningism" is always meningitis. It was that of a boy who had been operated upon for acute mastoiditis, and there had been pus against the lateral sinus. Next day rigidity of the neck came on. We did not do lumbar puncture. Mr R. J. Cann laid the wound widely open, washed it out with saline, and the boy recovered from his meningeal symptoms. Afterwards symptoms developed suggesting a thrombosed sinus; an operation was performed for that condition and again the boy became much better. Later he had symptoms suggesting cerebral abscess and Dr Symonds advised an exploratory operation. I was reluctant to proceed with this because I felt that, if cerebral abscess should not be present, we would be taking away the patient's one chance of recovery by submitting him to further operation. The exploration was carried out, however, and in spite of our operation the patient recovered. This was the kind of case which Dr Symonds described to us eighteen months ago as "encephalitis of the cortex."

I have brought up a slide from a fourth case in which a mastoid operation was performed on a child who had a rigid neck and acute otitis media. After the operation the child went steadily downhill, and at the post-mortem examination miliary tuberculosis was found, with a tuberculoma in the parietal region of the brain, on the same side as the ear trouble. Careful examination at the autopsy showed that there was no question of spread from the ear to the meninges. This illustrates the fact that in cases of otitis media and rigidity of the neck you will sometimes make mistakes if you do not make a lumbar puncture. It is, however, better to have a live patient than to be certain of your diagnosis.

REFERENCES.—[1] *La Semaine Médicale*, 1894, xiv., 485. [2] Allbutt and Rolleston's *System of Medicine*, 1910, vol. viii., p. 199.

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