

thine capsule; mucous changes are secondary. It may seem difficult to admit that an intoxication transforms a compact bone into spongy tissue. But we first note that this process of spongy transformation does not occur at the expense of the compact tissue itself, but, according to some authors, as Katz, at the expense of the periosteum, and according to others, as Siebenmann and Manasse, at the expense of the remnants of the primary cartilage of the capsule, which persist in numbers in this capsule throughout life. Consequently, the new formation is effected at the expense of a tissue susceptible of change. On the other hand, different affections of bony tissue are actually considered as disturbances of nutrition; such is the case in rickets, and the digestive troubles by which rachitic children are attacked appear to represent the starting-point of the osseous dystrophy. Dry arthritis, progressive deforming rheumatism, also admit in certain cases an auto-toxic origin; in young subjects the malady evolves on the occasion of an acute infection or of a slight intoxication of digestive origin, or is connected with thyroid insufficiency. It is not, therefore, irrational to consider that the characteristic osseous lesions of oto-sclerosis can result from an auto-intoxication. The frequency even of oto-sclerosis on the occasion of pregnancy strengthens this hypothesis; for in half the pregnant women a special modification of the cranial bones exists, which consists in the production of osteophytes formed of spongy tissue on the inner table of the cranial box. These osteophytes, the formation of which appears connected with the gravid toxæmia but which disappear with the pregnancy, can be, nevertheless, connected anatomically with the osteophytes which are formed in oto-sclerosis at the expense of the labyrinthine capsule.

STUDIES ON LABYRINTHINE SUPPURATION.

BY PROFESSOR ADAM POLITZER.

(*Author's abstract of a communication read before the Eighth International Otological Congress, Budapest, 1909.*)

PROFESSOR POLITZER bases his statements upon a large number of accurately observed clinical cases in which he has had the opportunity of histologically examining the labyrinth *post mortem*.

Owing to the short time allotted for speaking, he limits himself to the description of two marked cases, and calls attention to the

future publication of the whole series in the *Archiv für Ohren-
heilkunde*.

After describing two typical cases, and explaining them further by charcoal drawings and demonstration of histological specimens, he stated the following conclusions:

In those cases of labyrinth suppuration secondary to chronic middle-ear suppuration, the diagnosis of which can only be definitely made by the presence of, or history of, labyrinth symptoms, together with functional testing of the cochlea and vestibular apparatus, and the finding during the radical mastoid operation of a defect of the labyrinth capsule, the complete exposure of the suppurative area is indicated.

In the labyrinth one should *not* limit himself to removing the semi-circular canals and opening the vestibule. Professor Politzer lays much greater stress on the radical cleaning out of the cochlea, because most of his autopsies showed that the vast majority of labyrinthine meningitides came from the cochlea, while those developing from the semi-circular canals and vestibule (aqueductus vestibuli) were few in number.

There are cases in which the secondary suppurative labyrinthitis gets well without any intra-cranial complication, where merely a conservative expectant treatment has been used. However, if one considers the anatomical findings in the fatal cases, especially the frequent disease of the cochlea, and its breaking through into the internal auditory canal, then the indication for labyrinth operation (opening) becomes the more imperative, the more marked the diagnostic features of a diffuse suppurative labyrinthitis appear, together with total deafness of the diseased ear. Politzer chooses as a labyrinth operation, the one introduced into aural surgery at his clinic by Dr. H. Neumann, which can be easily performed after practising it on the cadaver. By this method, while sparing the facial canal, the posterior wall of the pyramid is removed as far as the internal auditory meatus, the peripheral end of the nervus-acusticus, which is often infiltrated, is reached, without cutting through the dura mater covering the nerve. Only in cases in which there are symptoms of intra-cranial complications should it be exposed.

If when this operation is performed no deep-seated intra-cranial complication is present, the results of this procedure are more favourable than those of other operative methods.

In view of his pathological-anatomical findings in secondary labyrinth suppurations, Professor Politzer is in favour of radical procedure.