

2. *Condition of Middle Ear.*—A chronic middle ear suppuration, in my experience, seems to lessen the liability to acute attack of *influenzal mastoiditis*. If this is not the general experience, how are we to account for the comparatively few cases of acute attacks on old suppuration, wherein the patients themselves have all the symptoms of influenza. The healthy middle ear may be able to take care of the infection, while in the antrum and mastoid it goes on to a purulent process, being shut off by granulations and swollen mucous membrane in the additus ad antrum. Then absorption may take place in some instances with cessation of all trouble, but usually the infection process continues, and is eventually operated upon. The middle ear may be inflamed by organisms which are not allowed to overcome the prophylactic powers of the tympanum, and simply an effusion, either sterile or containing a few slow-growing staphylococci. The difference between the simple and purulent case is that pus cells in any large number tend to liquify the exudate, instead of depositing fibrin, and also lead to necrosis of tympanic tissues through their solvent action. It is, therefore, not surprising that in some cases we find extensive destruction of the membrani tympani and necrosis of the ossicles. A very mild infection may cause the latter, as in places the periosteum of the ossicle may be only a layer of epithelial cells.

3. *Course the case may take when mastoid antrum is invaded.*

(1) Congestion and inflammatory infiltration of the antral mucous membrane and small cells may arise and subside without any further trouble. This probably takes place in all acute middle ear inflammations, and accounts for the mastoid pain seen in the first twenty-four hours, and then disappearing.

(2) Free formation of pus, retention, destruction of bone may follow, and is simply a further stage.

In the first stage we temporize safely, while with the later we wait, at the patient's risk.

The type of mastoid has a bearing on the course the case runs. The small, hard sclerosed bone offers resistance, while the large diploeic type appeals to invite further rapid necrosis; clinically, however, the opposite may take place.

4. *Symptoms.*—The ordinary symptoms of mastoid involvement—discharge, pain on pressure, dipping of posterior superior wall and rise of temperature—are familiar to you all. In *influenzal* cases most all of these, even sometimes discharge may be absent. The symptoms may be most misleading and the case give great concern or very false security.