

of instruments, I insufflate into these chambers the dry powder of salicylic acid, or a combination of boracic acid, four parts, salicylic acid, one part, or introduce the ethereal solution of salicylic acid and iodoform. By carefully and dexterously doing this daily, or, as may be found necessary, keeping the ear dry by wiping out with absorbent cotton, a markedly better condition will soon be obtained.

Where granulation tissue has proved a source of trouble, two conditions must be observed:

(a) Avoid syringing as much as possible, and keep the ear dry, as moisture tends to favour production of this tissue.

(b) Improve the general health, and bring your patient under the most favourable hygienic measures, for in a lowered tone, as is frequently found in these cases, we have a condition favourable also to the production and reproduction of granulation tissue.

Against these two conditions, or either of them, treatment of any kind will almost certainly disappoint.

The intimate connection between the ear and nasopharynx will render it apparent that any disorder here must receive our earliest attention.

Thus, by a rational and judicious treatment of these cases—not meddlesome and abusive—we may confidently hope to remove the suppuration, heal the perforation of the membrana tympani in many cases, and restore the organ without great loss of function of the transmitting apparatus.

2nd. Those cases resulting from a severe and extensive inflammation, and destroying the whole, or large part, of the membrana vibrans, without ankylosis or fibrous bands. Here we cannot hope to restore the transmitting membrane to its normal function, and must, therefore, endeavour to reduce the mucous membrane of the middle ear into a non-secreting or dermoid condition.

All polypi and granulation tissue must be removed, as before described, and the stumps treated by compression by packing thoroughly with powdered boracic acid or salicylic acid, provided necessary drainage is not interfered with. These powders tend to reduce the mucous lining to cicatricial tissue. This is the rational of the so-called "Dry treatment," and is as successful here as it is absurd and objectionable in other cases. A saturated solution of boracic acid in absolute alcohol in some cases acts well.

If the odour of the pus is fetid, this must first be corrected, and, so long as it remains fetid, after thorough syringing, we may safely conclude we have not succeeded in carrying out the first principles of surgery necessary to recovery—cleanliness and thorough drainage and our efforts should never be diverted from attaining this one object. If external syringing fail, we should wash out through the Eustachian tube, or by thorough intratympanic irrigation by a Hartman or other suitable canula. By this means, the purulent focus, in some recess in the attic, may be reached, retained pus and cholesteatoma removed, and all fœtor corrected. Failing with this, I inject with an intratympanic syringe the alcoholic ethereal solution of iodoform and salicylic acid, which proves corrective both by its specific action upon the tissue, diffusing readily through the recesses filled with cheesy pus, and by washing out the coagulated secretion. Sometimes when carious bone is a cause of fœtor, retaining pus in its honey-combed structure, I have found benefit from the application of a 5 per cent. solution of hydrochloric acid to the part for fifteen to twenty minutes daily.

3rd. When this fetid pus is persistent against thorough syringing and antiseptics, we are probably face to face with a third class of cases, viz.: those cases, where the inflammation was severe, extensive and persistent in attic, antrum, and mastoid cells, throwing out plastic matter about the ossicles, producing ankylosis, fibrous bands, and a consequent retention of secretions in these more distant chambers. In some of those cases it may still be possible to repress the otorrhœa. If there is a perforation of the membrana flaccida, we may succeed in curetting the attic, and by the introduction of powdered salicylic acid or ethereal solution, remove the obstruction to drainage and bring it into a healthy condition, but in a proportion of cases this will fail. Otorrhœa continues with occasional exacerbations and is rebellious to all ordinary treatment, the normal function of the transmitting mechanism is destroyed, and great deafness results.

A knowledge of the anatomy of the tympanum will, at once, make it apparent that in this pathological condition, there must be more or less obstruction to the free outflow of secretions. Pus and cholesteatomatous matter, formed in the attic or antrum, are unable to make free exit, and in