EXPERIMENTAL STUDY ON THE SURFACE ANESTHETIC FOR DRUM MEMBRANE DISSOLVED IN PROPYLENE GLYCOL

The 4th. Report: Clinical Experimental Study on New
Anesthetic Solutions of Drum Membrane

By

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The anesthetic action on the drum membranes of Tymkol-H and Tymkol-S prepared according to the results of experimental study on external auditory canals was examined in 100 patients.

The results obtained were as follows.

1. Anesthesia was found always sufficient in paracentesis done in infants and children, but not always so in adults. The anesthetic action of Tymkol-H for the drum membrane, however, was much stronger than other anesthetics conventionally in use in the past.

2. After anesthetizing the tympanic membrane, with Tymkol-H, Tymkol-S was applied intratympanally without pain and then paracentesis was carried out painless in one hundred cases excepting a few.

3. It seemed that the intratympanic application of Tymkol-S showed not only a powerful anesthesia of drum membrane but a curative significance to otitis and tympanogenous tinnitus.

4. It was macroscopically observed that the tissues of the drum membrane was not injured by Tymkol-H as well as Tymkol-S in any of the 100 cases.

FUNDAMENTAL STUDIES ON THE PENICILLIN TREATMENT OF OTITIS MEDIA

By

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By observing collectively the relations among the Concentration of penicillin in blood, that in otorrhoea and the number of bacteria in it, when various kinds of penicillins were dosed by intramuscular injection to cases of otitis media, the following results were obtained.

The concentration of penicillin in otorrhoea is of significance only in combination with that in blood and it is only after knowing both of these concentrations that the concentration of penicillin in mucous membrane tissue of tympanum can be estimated. This was verified by measuring changes in number of bacteria in otorrhoea, the kinds of bacteria which cause inflammations, and their susceptibilities to penicillin, as well as both of the above concentrations.

That mere concentration of penicillin in otorrhoea alone cannot be relied upon was proved by determining the changes in number of bacteria. But higher concentration of penicillin in otorrhoea is in itself effective for the cure of otitis media. The concentration of penicillin in otorrhoea is lower in chronic cases than in acute ones. This is believed due to the permeability of the mucous membrane tissue of tympanum.

From these relations, the aqueous procain penicillin was considered most advantageous of various kinds of penicillin preparations.

RELATION BETWEEN NASAL SEPTUM AND HARE-LIP AND CLEFT PALATE

By

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Examination of 10 cases of hare-lip, 6 cases of cleft palate, and 9 cases of hare-lip and cleft palate in their relation with the nasal septum revealed that all cases of unilateral hare-lip showed nasal deviation on the same side of the hare-lip, that all cases of cleft palate also indicated nasal deviation, and that in cases of bilateral hare-lip and cleft palate with the lower edge of the septum free, there were projection of the intermaxilla and nasal deviation. Such septum deviation accompanying malformation of the face, was considered due in the case of hare-lip to the lateralisation of the palate while still in the intrauterine stage and incidental asymmetric development of the vomer; in the case of cleft palate to the development of the septum cartilage under the special condition of lack of support of the posterior-inferior edge of the nasal septum, and in the case of bilateral hare-lips and cleft palate to the development of the septum cartilage under the special condition of complete lack of support owing to the inferior edge of the nasal septum being totally free, thus giving rise to the projection of the intermaxilla and the nasal deviation.