
R é s u m é

STUDIES ON STREPTOMYCIN LEVELS IN LIQUOR CEREBROSPINALIS AND BLOODS IN ADULT PATIENTS OF MENINGITIS TUBERCULOSA

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1. The streptomycin levels in liquor cerebrospinalis and bloods were strictly measured on 29 adult patients of meningitis tuberculosa.

2. By intracisternal use, it was found that the level of lumbar gets higher than that of cisterna after few hours, maintaining over 24 hours. For instance, the liquor levels of cisterna in 24 hours were, 1,002, 541, 116.6, 35.2, 7.5, and those of lumbar, 325, 627, 354, 78.9, 9.25 mcg/ml on the average of 3 cases, when 100 mg had been given into cisterna.

3. The remaining grade of streptomycin in liquor cerebrospinalis has not any statistical correlations with date of therapy and cell count, in the streptomycin therapy of intracisternal or intralumbar use of 50-100 mg. It seems that the change of permeability of meninges is not demonstrated statistically, because streptomycin level is too high.

4. The streptomycin levels and liquor cerebrospinalis were discussed.

ON A NEW CLINICAL SENSITIVITY TEST

(A Screening Test by Paper Band Method)

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Since MCKERCHER (1946) has reported on a sensitivity test using the BREWER's thioglycollate me-

dium containing 0.5 u/cc of penicillin, a number of clinical and laboratory methods were published by many authors. Among them, the aureomycin sensitivity tablets of Lederle's Institute, Roskilde Company and Heins Mack. Nachf, and others are now broadly used in clinic. These tablets methods are generally available to discriminate a relative choice of antibiotics, but they does not show any absolute sensitivity to the tested organism.

The present article is concerning a new screening test method for clinical antibiotic therapy, which we call a paper band method. A brötting paper band, 2.5×45 mm in size, is prepared to hold an antibiotic, e. g. penicillin, streptomycin, chlortetracycline (aureomycin), chloramphenicol or oxytetracycline (terramycin), in certain sections of serial concentrations, and it is preserved after exsiccation.

By use the sensitivity bands are set on the plate agar medium, which is inoculated with test organism or sample, and, when necessary, preserved in refrigerator during 24 hours at 38°C before culture. In the course of 16-24 hours culture there will appear fan-or dumpling formed inhibitory zones in the circumstances of testing bands when the test organism is sensitive against antibiotics. The front curves of inhibitions mean the sensitivity ratios and at the same time one can trace the front curves until the minimal inhibitory concentrations of each antibiotic.

Thus by our band method, it was confirmed that the usefulness of an antibiotic is discriminated in relation to another in the same and different concentrations. And it is a merit of this method that one can trace the minimal inhibitory concentration (m.i.c.) of the antibiotics at the same time.

In this article we also reported on our studies on the conditions and factors of inhibitory zones performed by the sensitivity testing bands.