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NOTES AND COMMENTS:

Current Problems in Meningococcal Diseases

by

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Since 1963 sulfadiazine resistant strains of meningococci have been isolated from patients in both military recruits and the civilian population.[1,2] Therefore, it is not surprising that sulfadiazine is no longer effective as a prophylactic agent for carriers of resistant strains or in the treatment of patients with meningococcal disease due to these organisms. This change in sulfadiazine susceptibility of *N. meningitidis* was associated with a shift from the predominance of infections caused by group A meningococci in the epidemic periods of World War II to the current prevalence of infections due to group B and to a lesser extent, group C organisms.

STRAINS OF *NEISSERIA MENINGITIDIS* SUBMITTED to NCDC in 1966[3]

Serogroups	Number	Percent
A	2	0.25
B	548	70.6
C	98	12.6
D	2	0.25
Not typed & "rough" strains	126	16.3
Total	776	100.0

That sulfadiazine resistance is not a new characteristic of Group B meningococci is evident by the demonstration of resistant strains isolated prior to the introduction

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of this agent. The magnitude of the current problem is indicated by the findings that 40% of the 1966 strains tested at the NCDC were resistant to a concentration of 1.0 mg. percent of sulfadiazine.[3]

The lesson is clear. To treat patients successfully, reliance should be placed upon the proper antibiotic, especially penicillin given in large doses. The probability of survival under these circumstances is as good as with sulfonamide-sensitive treated infections.[1]

Unfortunately, currently available antibiotics fail to eliminate the carrier state. For example, penicillin V, in a dose of 6 grams daily, decreases carrier rates, but once the antibiotic is withdrawn the carrier rate quickly reaches its pretreatment level. The solution to this problem is not now evident but may rest with development of an effective meningococcal vaccine. Such a vaccine will be of paramount importance if sulfonamide resistant group A strains emerge. Such strains have not been thus far reported from the United States, but the first observation of sulfadiazine resistance among group A. *N. meningitidis* was recently made in N. Africa.[4]

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