JOURNAL OF CLINICAL MICROBIOLOGY, Nov. 1983, p. 1264–1265
0095-1137/83/111264-02$02.00/0

Vol. 18, No. 5

# Gono Gen Coagglutination Test for Confirmation of *Neisseria gonorrhoeae*

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Received 27 June 1983/Accepted 9 August 1983

The Gono Gen (Micro-Media Systems, Inc., Potomac, Md.) coagglutination test was compared with the sugar utilization test and with a direct fluorescent antibody test for confirmation of *Neisseria gonorrhoeae*. Of 110 gonococcal clinical isolates, 109 were positive by the Gono Gen test. Of 57 nongonococcal gram-negative diplococci, all were negative by the Gono Gen test. We conclude that the Gono Gen test is sensitive and highly specific and provides a rapid method for the confirmation of *N. gonorrhoeae*.

The Gono Gen (Micro-Media Systems, Inc., Potomac, Md.) coagglutination test has been proposed as a confirmatory test for the presence of *Neisseria gonorrhoeae* (J. P. Libonati, R. L. Leilich, and L. Loomis, Abstr. Annu. Meet. Am. Soc. Microbiol. 1983, C19, p. 314). To determine its usefulness in our laboratory, we compared the Gono Gen test with the sugar utilization test and with a direct fluorescent antibody test for confirmation of 108 gonococcal isolates and 57 nongonococcal, gram-negative diplococcal isolates.

The Gono Gen kit contains pooled murine monoclonal antibodies against protein I antigen purified from several strains of *N. gonorrhoeae* and coupled to heat-killed intact staphylococci. When a boiled suspension of gonococci is mixed with the reagent on a glass slide, visible coagglutination should occur within a few mintues. For the direct fluorescent antibody test, the conjugate was obtained from Difco Laboratories (Detroit, Mich.).

The 108 isolates of *N. gonorrhoeae* were oxidase-positive, gram-negative diplococci that utilized glucose but not maltose on New York City fermentation medium (1). The 57 nongonococcal isolates were oxidase-positive, gram-negative diplococci that were not both glucose positive and maltose negative. Fifty-five percent of all isolates were from women. The gonococci included one pharyngeal and eight rectal isolates; the rest were either cervical or urethral. Most of the nongonococcal isolates were obtained from pharyngeal specimens.

Our results are summarized in Table 1. Although most of the gonococcal specimens were tested as 1-day-old growth on New York City medium, six were tested from growth on the JEMBEC plates on which they arrived in the laboratory. Of these six, four specimens were in transit 1 to 2 days and were confirmed in all three tests. The other two were so long in transit that viable gonococci could not be recovered for confirmation by sugar utilization. One was in transit 6 days and was fluorescent antibody positive and Gono Gen positive. The other was in transit 11 days and was fluorescent antibody negative but Gono Gen positive. Although this specimen could not be reported as a confirmed positive, the patient had been exposed to a known case of gonorrhea, and the positive Gono Gen result was probably correct. Another laboratory isolate was strongly positive by the Gono Gen test after 6 days at 36°C, so this confirma-

TABLE 1. Comparison of three confirmation methods for *N. gonorrhoeae*

| Organisms | No. of strains showing test result: | | | | | |
|---|---|---|---|---|---|---|
| | Direct fluorescence | | Sugar utilization (glucose positive, maltose negative) | | Gono Gen coagglutination | |
| | + | − | Yes | No | + | − |
| Gonococci | 109 | 1 | 108 | 2[a] | 109 | 1 |
| Nongonococci[b] | 0 | 57 | 0 | 57 | 0 | 57 |

[a] Nonviable (6 and 11 days in transit).
[b] Oxidase-positive, gram-negative diplococci.

tory test might be especially useful on gonococci that are too old to detect by other methods. One of the 108 confirmed gonococcal isolates was negative by the Gono Gen test. Presumably this test may become even more sensitive as additional monoclonal antibodies are added to include the occasional misses.

We conclude that the Gono Gen test is sensitive and highly specific and provides a rapid method for the confirmation of *N. gonorrhoeae*.

## LITERATURE CITED

1. **Faur, Y. C., M. H. Weisburd, and M. E. Wilson.** 1975. Carbohydrate fermentation plate medium for confirmation of *Neisseria* species. J. Clin. Microbiol. 1:294–297.