In their recent article Overman et al. (5) present data on the sensitivity of Granada agar (7). These data are similar to those presented by the same authors in a poster with the same title (D. D. Eley, S. B. Overman, B. E. Jacobs, and J. A. Ribes, Abstr. 100th Gen. Meet. Am. Soc. Microbiol., abstr. C-238, 2000).

In the poster they reported a sensitivity of 60% and in the article they reported sensitivities of 18.9 and 68.8% for two batches of Granada agar (Hardy Diagnostics, Santa Maria, Calif.). These results differ from all other evaluations, which have found sensitivity higher than 90% (1, 2, 4, 10).

There has been a flurry of e-mails on the American Society for Microbiology Division C list concerning Granada agar, and it is clear that the problem is stability. As stated in Hardy’s technical literature (catalog no. G123), Granada agar deteriorates quickly at room temperature and is useless after a few days. To overcome this problem, plates should always be kept refrigerated during transport and in the laboratory. This short shelf life of Granada agar at room temperature is mainly caused by hydrolysis of starch by the amylase present in the horse serum (8).

A key point is the use of the correct peptone. GBS pigment production is complex (even the pigment structure is unknown). The first starch-serum medium for the detection of group B streptococcus (GBS) pigment was designed in 1977 (3). Since then it has become apparent that Proteose Peptone 3 (Becton-Dickinson, Difco, Franklin Lakes, N.J.) is the only suitable peptone, because it contains peptides necessary for GBS pigment production (9).

Overman et al. incorrectly insist that Granada agar must always be incubated anaerobically. GBS pigment production is related not to anaerobiosis but to growth conditions. The pigment can be easily detected by using the medium in tubes or by covering the inoculated plate with a cover slide (10), as described in Hardy’s technical literature.

An overlooked fact is that hemolysis and the pigment are inseparable in GBS. All hemolytic strains are pigmented, and all pigmented strains are hemolytic (6, 11, 13). The genetic link is so tight that mutants lose simultaneously their abilities to produce pigment and hemolysin (12). Overman et al. have found an Enterococcus sp. producing pigment in Granada agar. But since the first starch-serum medium was described (3), this is the only report of its kind and therefore this finding requires confirmation.

The results obtained by Overman et al. for the sensitivity of different batches of Granada agar (18 and 68.8%) can be explained by poor storage conditions during transport or in the laboratory. This issue is acknowledged by the authors when they state, “Possibly also underlying the high false negative rate for Granada agar is the issue of medium stability.” Their conclusion is misleading when they state that Granada agar has poor sensitivity. They should argue that Granada agar should be shipped and stored under the right conditions and that any batch of deteriorated medium should be discarded.

REFERENCES

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Ed. Note: The authors of the published article did not choose to respond.