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EDITORIAL

Fertility and Infertility

A vigorous and varied round of discussion occurred in the session "Fertility and Infertility" at the Third Annual International Symposium on the Immunology of Reproduction, Winston-Salem, North Carolina. Many questions and much hope for answers through future research were raised by the participants' presentations.

The article by Mathur and her co-workers on "Sperm immunity in infertile couples: Antibody titers are higher against husbands' sperm than to sperm from controls" (Am J Reprod Immunol 3:1) demonstrated increased reactivity in men and women who had HLA-B7, HLA-B8, and HLA-BW35. The differences may be genetically determined, and one wonders if variations in responses are genetically controlled, as was demonstrated in strains of mice and rats by Bigazzi et al in 1977 and 1978. It is also important to ask whether any of the couples studied had shared HLA sites of B7, B8, and B35 between the husband and wife. If so, was the incidence of abortion increased in those women of the couples who did conceive?

Bronson and his co-workers discussed the possibility of using freeze-thawed sonicated human sperm as an in vitro immunoabsorbant for spermatozoa of men who had high levels of sperm antibody on their sperm surfaces. This approach deserves further investigation, especially since they demonstrated that the antibody found in spermatozoa could only be demonstrated after ejaculation, thereby showing that the antibody did not coat the sperm in the epididymal region.

The identification of human sperm antigens to antisperm antibodies, presented by Huang (Am J Reprod Immunol; in press), by use of the SDS/gel protein blot immunobinding, may have potential in identifying patients with antisperm antibodies who are infertile.

Hendry and his group presented three papers (Am J Reprod Immunol 3:1; Am J Reprod Immunol 3:2). The first one discussed the mode of agglutination, whether head-to-head or tail-to-tail, as detected by the tray agglutination test (TAT). This may have significance in differentiating infertile males from men with obstructed vasa deferentia for whatever reason. However, these studies need further confirmation before being used extensively clinically.

The second paper discussed the mixed antiglobulin reaction (MAR); the conclusion reached was that this test is more specific for detecting antisperm antibodies in infertile men and, therefore, may be a useful adjunct when no other cause of infertility can be detected. More confirmation is necessary before universal use of the MAR will be undertaken.

The third paper from Hendry's laboratory was reassuring in that only men with sperm agglutinating antibody titers of 1:512 or greater had decreased fertility potential after reanastomosis of previously interrupted vasa derentia. However, data concerning sperm-immobilizing antibodies in these men were not included. The presence of sperm-immobilizing antibodies might be more pertinent to fertility potential than sperm-agglutinating antibodies.

The paper presented by the Shulmans on corticosteroid treatment of immunologic infertility in the male was interesting. This therapy still must be considered empirical, since controls and dosage requirements have not been adequately evaluated. In addition, others have noted some serious side effects with corticosteroid therapy, even for short bursts of use, mainly of the gastrointestinal tract.

The entire session "Fertility and Infertility" was enlightening, informative, and educational. There was no doubt that newer techniques are urgently needed to properly identify men and women with immunologic factors that decrease their fertility potential and that new treatment regimens must be properly evaluated and controlled in order to try to increase fertility potential. We look forward to further advances in this field during the coming years.

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