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The present study was undertaken to evaluate the significance of antibodies against spermatosomal surface-membrane antigens in female infertility.

"Comparison between sperm agglutinating activity in serum and cervical mucus of infertile women" was carried out in the Department of Obstetrics and Gynaecology in collaboration with the Department of Pathology, M.I.B. Medical College, Jhansi.

A total of 100 women were studied for the incidence of sperm agglutinating activity in serum and cervical mucus. Ten women of known fertility were taken as control group while, 96 women having unexplained infertility were taken as study group.

All the women were assessed on the basis of clinical history, examination and investigations. The infertile women were further sub-grouped into primary infertility including 86 women and secondary infertility including 10 women.
The age of the women ranged from 18-40 years and maximum number of cases (36.67%) were between the age of 21-30 years. The duration of infertility ranged from 2 - 30 years. Maximum number of cases (51.66%) were having infertility of 6 - 10 years duration.

The sperm agglutination test of Franklin and Dukes (1964a) was used in a slightly modified way for the presence of sperm agglutinating activity in serum. Microscale test of cervical mucus extract was used for sperm agglutinating activity in the cervical mucus.

Out of 96 women, 11 (11.46%) having unexplained infertility showed positive sperm agglutination test in serum while 36 women (37.50%) showed positive test in cervical mucus. None of the control cases showed positive result either in sera or in cervical mucus.

Out of 11 women with positive sperm agglutinating activity in sera, 9 women showed agglutinating activity in cervical mucus (81.82%) while 2 women showed agglutinating activity in sera only (18.18%).
Out of 26 women with positive sperm agglutinating activity in cervical mucus, 9 women had agglutinating activity in serum also (34.61%), while 17 women had sperm agglutinating activity in cervical mucus only (73.07%).

There were no significant difference in sperm agglutinating activity in serum and cervical mucus of both the groups; primary and secondary infertility.

Women having positive sperm agglutination test were kept on condom therapy along with corticosteroids for 6 weeks to 3 months. After stoppage of corticosteroid treatment, women were kept on oestrogen therapy. Till now none of them have returned with pregnancy. It is yet to be seen how far this treatment would be helpful in such cases. As the number of cases in our study was small, no conclusive opinion could possibly be drawn at present.

On analysis of the result, it is apparent that

(1) Cervix is definitely a local site for antibody production and possibly a factor for infertility in women having unexplained infertility.
(ii) Poor Post Coital test definitely suggests a
local immune reaction and signifies the study
of anti-sperm antibodies at the local site,
i.e., cervix magna.

(iii) Antidoies against spermatosa may only be
found at local site without showing their
presence in systemic circulation and
vice-versa.