

membranes and preterm delivery was almost the same in both groups. The percentage of instrumental deliveries was higher in the study (6.7%) than in the control group (4%), but the incidence of cesarean section was higher in the control group (10.7% in comparison with 6.7% in the study group). The average birth weight was very similar in both groups (2989g in the study and 3112g in the control) and so was the condition of the newborn (average Apgar score at 5 minutes of 9.7 in both groups). Interestingly, we have noticed a higher proportion of female newborns in the study group (61.3%) than in the control group (48.6%). This is consistent with other reports in the literature.⁴ There was one case of postpartum psychosis in the study group, which may confirm the suggestions that hyperemesis gravidarum is more common in the postpartum depressed women.⁵ Our number is of course, too small to draw any definite conclusion. In summary, this study confirms other similar reports,⁶ which suggest that hyperemesis gravidarum does not, in any significant way, affect the future outcome of pregnancy.

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Antisperm antibodies and unexplained infertility in Syria. *An unsolved problem?*

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Infertility is a common condition with important psychological, economic, demographic, and medical implications. Demand for infertility services has grown substantially in recent years, even though the prevalence of infertility has been stable.¹ Infertility is the inability to conceive after one year of intercourse without

contraception.² The prevalence of infertility is approximately 13-14%.³ The causes of infertility are: male factor 18%, tubal damage 14%, endometriosis 9%, coital problems 5%, cervical factor 3%, and unexplained 28%.⁴ Antisperm antibodies are now a well-established cause of male infertility, although this relationship was suggested more than 30 years ago. Current basic science research is improving our understanding of the complex relationship between infertility and the immune system. Approximately 10-30% of men with unexplained infertility are thought to have immunologic factors involved, confirming the importance of our research.⁵

Our study was carried out on 2 groups, the first was patients including 30 men and 24 women aged 18-45 years, who suffered from unexplained infertility (all their routine tests for evaluating infertility are normal). The second group was controls (who conceived their last child 2 years or less before the study), included 45 fertile men and women aged 17-52 years. Both groups were divided into age categories, category one included those <30 years, category 2 included those aged between 31-35 years, category 3 included patients aged 36-40 years; the last category (4) was formed by those who were >40. Based on the history of previous surgery in the reproductive tract in our male patients, we divided them into 2 groups, the first group included 11 patients with previous surgery, and the second group consisted of 19 patients with no previous surgery on their reproductive system. We evaluated the patients and control groups by detecting antisperm antibodies (ASA) (immunoglobulin (Ig) A, IgM, and IgG antibody classes) in their serum by 2 methods. The first method was indirect immuno-fluorescence (IIF) with "Antibodies against spermatozoa" from Euroimmun Company, Germany. Antibodies against spermatozoa antigens can bind to various structures of the spermatozoa (head, tail, and middle part). Fluorescence is most frequently found in the tail region, and this test would be considered positive when we found any fluorescent tail in diluted serum (1:10). This method is qualitative, and may be used as semi-quantitative by using a serial dilution of serum. The second method was an enzyme linked immunosorbent assay (ELISA) with "Spermatozoa Antibodies ELISA" from IBL Immuno-biological laboratories, Germany. This is a quantitative method, and the cutoff for this method was 150 mU/100µl (75 U/ml in the undiluted sample), hence, every sample over this cutoff was considered positive. **Figure 1** showed that out of 54 patients, 22 were positive for the presence of ASA (total) in their serum when the IIF method was used, these included 11 males and 11 females (50% men and women), and out of 45 controls, only 3 serums (males) contained antisperm antibodies. When the ELISA method was used, 20 out of 54 patients' serum was positive for spermatozoa antibodies, including 12 males and 8 females (60% men and 40% women), whereas 4 controls serum (2 men and 2 women) were

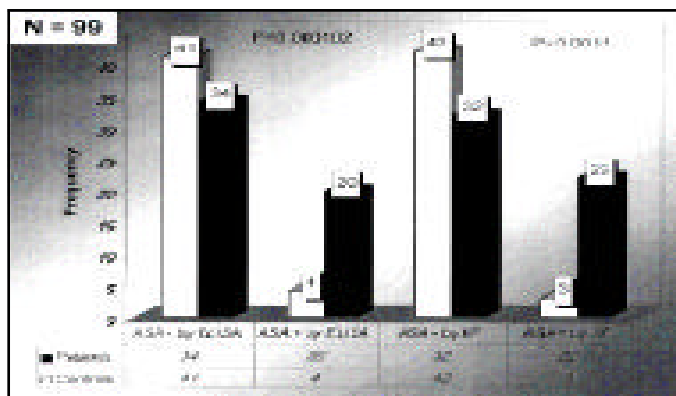


Figure 1 -Prevalence of ASA in unexplained infertility group (54 males and females) determined by indirect immuno-fluorescence (IIF) and enzyme linked immunosorbent assay (ELISA).

Table 1 - Age group-distribution of unexplained infertile patients and controls in accordance with the presence of ASA in their serum.

Method	Category one (≤ 30 years)	Category 2 (31-35 years)	Category 3 (36-40 years)	Category 4 (>40 years)
ASA+ by IIF	6	6	10	3
ASA- by IIF	21	20	24	15
ASA+ by ELISA	5	7	8	4
ASA- by ELISA	16	19	26	14

ASA+ = Positivity of anti-sperm antibodies, ASA- =Negativity of anti-sperm antibodies, IIF - indirect immuno fluorescence, ELISA - enzyme linked immunosorbent assay

positive. **Table 1** illustrates the results according to age. The results of investigation of the role of any history of a previous surgery in the reproductive tract in our male patients showed that out of 11 patients with previous surgery, 4 of them were positive in terms of serum-spermatozoa antibodies using the IIF method, and 7 were negative. Out of 19 patients with no previous surgery on their reproductive system, only 7 had spermatozoa antibodies in their serum using the IIF method. Whereas, out of 11 patients with previous surgery, 3 of them were positive in terms of serum-spermatozoa antibodies using the ELISA method and 8 were negative. Out of 19 patients with no previous surgery on their reproductive system, only 8 had spermatozoa antibodies in their serum using the ELISA method.

Statistically, we found that there was a very strong correlation between ASA presence in serum, and unexplained infertility ($P=0.000102$ using the IIF method, and $P=0.0011$ using the ELISA method) (**Figure**

1). However, there was no obvious correlation between the presence of spermatozoa antibodies and age or sex. The same conclusion was reached considering any previous surgical history in the reproductive system. These findings strengthen and enhance the theory of the role of ASA in infertility. Thus, application of antisperm antibody detection should become an integral part of the investigation of unexplained infertility.

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Adhesive intestinal obstruction in infants and children

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In adults, the treatment of adhesive intestinal obstruction (AIO) is well established, and conservative treatment in the form of intravenous fluids and nasogastric aspiration form the basis for the initial therapy in selected patients.¹ This however is not the case in the pediatric age group, where the treatment is still controversial.³⁻⁵ One reason for this is that AIO is relatively rare in the pediatric age group. Add to this the lack of consensus regarding the place of conservative treatment of AIO in infancy and childhood. This is a review of our experience in the management of AIO in infants and children. To our knowledge this is the first report regarding AIO in infants and children from the Kingdom of Saudi Arabia.

The medical records of all children admitted with the diagnosis of AIO between June 1989, and December 2000 were retrospectively reviewed for: age at diagnosis, sex, interval between initial surgery and presentation with AIO, presenting symptoms, initial diagnosis, type of operation, treatment and outcome. In all children the treatment was initially conservative and consisted of resuscitation with intravenous fluids and electrolytes, nil by mouth, nasogastric aspiration and close observation. During observation, the following were recorded: temperature, abdominal girth, and