

Editors' highlights

Assisted reproduction techniques (ART) are available in 28 European countries and are being used to treat increasing numbers of patients. In 2003, the most recent year for which pan-European figures are available, there were 365,103 treatment cycles with ART, 132,932 of which involved IVF and 162,149 involved ICSI. Over 46% of women undergoing IVF were aged over 34 and 12% were over 40. The risks of pregnancy are increased by ART. Risk to the baby has been reduced in some countries by limiting the number of embryos replaced but in eastern Europe more than 10% of ART cycles involved replacement of four or more embryos and in Greece the figure was 30%.

Maternal death in association with ART appears to be rare according to official figures but the latest report of the UK Confidential Enquiry into Maternal Deaths, published last month, showed that in 2003–2005 twelve deaths occurred after IVF. Four were due to ovarian hyperstimulation syndrome (OHSS) and in two of these cases the woman had had OHSS in the past. The report comments that without the Confidential Enquiry these deaths would have gone unnoticed. We are pleased to see that the European Society of Human Reproduction and Embryology (EHSRE) is holding a conference this month in Luebeck, Germany, on the management of health risks associated with IVF. These problems must not be overlooked and accurate reporting is essential.

What's new?

Laparoscopic hysterectomy was introduced almost twenty years ago and its major advantage over abdominal hysterectomy is usually said to be a faster recovery time. Kluivers and colleagues, however, point out (page 3) that quality of life in the postoperative period has been assessed by relatively few randomised studies. Good information on this subject is important as any improvement in quality of life has to be balanced against a higher risk of urinary tract injury in the laparoscopic procedure. The authors performed a systematic review and identified 30 randomised trials between 1994 and 2004, of which only seven reported on postoperative health or quality of life. Of the four that used validated quality of life questionnaires, two showed that it was significantly better after laparoscopic hysterectomy.

The authors conclude that women should be offered this approach but their report reminds us that the scientific basis for our advice is sometimes less robust than we think.

Intrauterine growth restriction (IUGR) is often associated with placental pathology. On page 9 Georges Boog of Nantes, France, reviews the condition of chronic villitis of unknown origin, which is thought to be due to a maternal immune response against the fetal allograft. Its incidence has been reported in different studies as between 6% and 34% of placentas examined in conditions such as IUGR, unexplained prematurity or intrauterine fetal death. There is a high risk of recurrence and Dr Boog suggests that treatment with aspirin and corticosteroids may improve the poor prognosis for the fetus in subsequent pregnancies, though this requires confirmation in further studies.

Obstetrics and maternal-fetal medicine

Manual dexterity was once the main attribute of obstetricians but as our specialty has become more of a science and less of an art, some skills have been lost. Skills are difficult to study and Reichman and colleagues from Jerusalem report (page 25) that there have been no studies of the technique of manual rotation of the fetal head. They recruited 61 women in the second stage of labour with the fetal head engaged in the occipito-posterior position. In the first of two consecutive groups, no manual rotation was attempted and the spontaneous delivery rate was 27%. In the second group, manual rotation by an experienced obstetrician or midwife increased the rate to 93%. A comparative trial of manual rotation versus Kielland's forceps would be interesting. What is vital, however, is accurate diagnosis of the position of the head, and we need to maintain this basic skill among trainee obstetricians and midwives.

Birthweights have been increasing, at least in some countries, for at least the last twenty years and the trend does not yet seem to have levelled off. On page 20 Figueras and colleagues from Barcelona, Spain, and Birmingham, England, report the effects of factors such as maternal weight and ethnicity on birthweight. Maternal weight has also been increasing in recent years and this may be contributing to the rise in birthweight. What does not seem to be increasing is the size of the maternal pelvis and more investigation is needed on the influence of these factors on caesarean section rates.

A more important effect may be on the risk of shoulder dystocia. Iffy and colleagues from New Jersey and Budapest point out (page 53) that almost 40% of malpractice claims in the United States arise out of shoulder dystocia. These claims could be avoided by caesarean section and the authors argue that current British and North American guidelines are too restrictive regarding this option. They believe that the mother should be informed of the risks of vaginal versus abdominal delivery and should be allowed to play an active role in the decision. We suspect that many mothers, told they are carrying a large baby, would opt for caesarean section.

The debate about maternal request for caesarean section is discussed by Liu and colleagues from Taipei, Taiwan, on page 46. Using data on 857,920 singleton deliveries, they investigated the effect of the gender of the obstetrician. They found that in regional hospitals there was no gender difference but in district hospitals male obstetricians were more likely to agree to the request than female ones. Objective data on gender differences are not only hard to obtain but also controversial, but these results suggest that the current sharp increase in the proportion of female obstetricians in the UK is unlikely to increase the caesarean section rate.

Reproductive medicine and endocrinology

Endometriosis is associated with infertility even when the fallopian tubes are patent and this association has been the subject of much research. On page 67 Noordin and colleagues from Malaysia and Australia report that peritoneal fluid from women with endometriosis suppressed embryo growth in a mouse model, and that the degree of suppression correlated with the severity of the disease. The embryotoxicity was reduced by the presence of excess pyruvate in the culture media. Peritoneal fluid contains numerous potentially embryotoxic factors including cytokines and nitric oxide and it is unclear which are the most important in causing embryo degeneration. The authors comment that elucidating the precise function of pyruvate in reducing this embryotoxicity represents a huge challenge.

Earlier in these Editors' highlights we discussed the recent increase in ART. Terava and colleagues (page 61) report that in Finland the use of infertility treatments more than tripled between 1992 and 2004 and is more common among urban, affluent and well educated women. Finland is a country where such treatments can be offered without diverting the attention and resources of our specialty from poorer and less educated women, but unfortunately this is not the case in all countries.

Gynaecology and gynaecological oncology

With increasing levels of obesity and concern about its adverse effects on health, more research is being done on the biochemical effects of body fat. A link with endometrial cancer has been known for many years and has been attributed to oestrogen production in adipose tissue. Oestrogen is not the only biologically active substance secreted by fat. Cymbaluk and colleagues from Szczecin, Poland, (page 74) investigated leptin, a cytokine produced by adipocytes. They studied 86 obese women, of whom 40 had endometrial cancer or hyperplasia and 46 had normal endometrium. Subjects were separated into three subgroups by body mass index and in all three subgroups serum concentrations of leptin were higher in the women with endometrial pathology than in the controls. Leptin's role in other cancers such as breast and prostate is still controversial but the authors suggest that it may be a useful marker for endometrial cancer in obese women.

Another potentially important protein is survivin, which is associated with chromosomes and which co-ordinates events during mitosis. It has similarities to the "inhibitor of apoptosis" proteins first identified in viruses and is upregulated in various malignancies including cervical carcinoma. Its production can be blocked by the relatively new technology of RNA interference (RNAi). On page 83 Song and colleagues from Shannxi, China, report that survivin gene RNAi inhibits proliferation in human cervical cancer cells. They are hopeful that in the future this technique may be used clinically for radiosensitisation of cervical cancer.

Gynaecological urology

The urethra is fundamental to the maintenance of urinary continence but its function is still not fully understood. Measuring pressure within the urethra is difficult and for many years has been done by retrograde techniques. Inserting a device into the urethra, however, inevitably distorts its anatomy and recently a less invasive method has been developed. This involves placing a plug into the external urethral meatus, infusing fluid and measuring the pressure required to open the sphincter. This is called the urethral retro-resistance pressure (URP). Kuhn and colleagues from Bern, Switzerland (page 116), studied 220 women and conclude that URP correlates well with urodynamic stress incontinence and with the results of conventional testing. Further studies to answer more detailed questions are in progress.

J. Drife
W. Künzel