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Editors' highlights

What's new?

Death rates of mothers and fetuses during pregnancy, labor and the puerperium have always been strong indicators of the functioning of a health care system. Maternal death, once the most important indicator, is no longer the focus of attention as antepartum and intrapartum fetal death and neonatal death play an increasing role. Perinatal mortality (PNM) has fallen strikingly during the last decades, reaching 0.5–1.0% today in European countries, due to reorganization of hospital care by establishing neonatal intensive care units and improvement of obstetrical services. Nevertheless, although PNM has become a benchmark for judging the healthcare system of a country, classification systems are not uniform. On page 99 Gordijn and colleagues from Groningen, The Netherlands, present a multilayered approach to PNM using existing classification systems, which they allocate to three categories: "When?" (based on the moment of death), "What?" (based on the clinical condition associated with death) or "Why?" (based on the underlying cause of death). They suggest that this approach is useful not only for in depth analysis of PNM in developed counties but also for developing countries, where resources for such analysis are limited.

The second review is on interstitial cystitis (IC), a more common disease than previously thought, with characteristic symptoms occurring in over 2% of women. Dell and colleagues from the USA (page 105) describe IC in a comprehensive way, discussing how to differentiate it from recurrent urinary tract infection, endometriosis, chronic pelvic pain, vulvodynia and overactive bladder. They emphasise the importance of correct diagnosis and in their final section, on how to manage patients with IC, they point out that a variety of effective therapies for this condition are available. Colleagues in outpatient practice as well as in clinical settings should find useful advice in this paper.

Obstetrics and maternal-fetal medicine

The first of a number of enlightening and inspiring articles in this section is focussed on prenatal screening. Ultrasound is an assessment tool which should stand beside every gynaecologic examination chair and should be available in every obstetrical unit, but this is not the case in every country. In the past obstetricians had only their hands but this new method of investigation has revolutionised our work. We say "new", but on page 110 Fadda and colleagues from Sassari and Padua, Italy, report 23 years' experience of routine second trimester (≤23 gestational weeks) ultrasound screening in 42.256 pregnancies. The overall incidence of fetal malformations was 2.48%. The overall sensitivity was 55% (CI 52–58%) and specificity was 99.8%, and it is interesting to see how, after the initial rapid "learning curve", both improved steadily over the years. The authors believe that in some parts of the examination, such as cardiac scanning using the four chamber view, they can achieve further improvements in sensitivity.

A report by Schaelike and colleagues from Nuremberg and Erlangen, Germany, (page 140) covers a more recent time period, from 2000 to 2006. They studied 11,107 women undergoing first-trimester Down syndrome screening using both ultrasound and serum analysis of free beta-hCG and PAPP-A. The authors compared high and low risk patients and found that the detection rate was the same for both. A combined risk calculation based on maternal age with both nuchal translucency and serum parameters was superior to the application of either parameter alone.

Many readers will be unfamiliar with GB virus C (GBV-C), a new virus which was discovered in 1995 and is distantly related to hepatitis C virus. Although the most effective transmission is parenteral, sexual and vertical transmission seem to be the main mode of spread. On page 115 Paternoster and colleagues from Novara and Padua, Italy, evaluate the maternal and perinatal importance of the GBV-C infection in pregnancy. They enrolled 879 pregnant women for serological testing and found that 36 (4.1%) were GBV-C positive. No complications during labor were present among the GBV-C positive patients. Of the 20 babies from this group who were followed up, 65% were positive: 4 from 9 vaginal deliveries and 9 from 11 caesarean sections. The rate of transmission is high but does not seem to be influenced by the mode of delivery and a protective role of caesarean section could not be confirmed.

The nutritional status of pregnant mothers should be a major concern during antenatal visits as both underweight and obese women are at increased risk of complications. Nevertheless some countries have abandoned routine weighing at each antenatal visit. Excess weight gain is usually a sign, not of high food intake, but of water retention and may be an early sign of pre-eclampsia. Salihu and colleagues from Tampa, USA (page 119) investigated pregnancy outcome in women whose pre-pregnancy body mass index (BMI) was below the normal range of 19.5–24.9. They compared normal women with three categories of low weight: mild (BMI 17.0–18.5), moderate (16.0–16.9) and severe thinness (≤15.9) and restricted their analysis to singleton live births at 20–44 weeks. The results were convincing. Underweight mothers were more likely to experience preterm delivery, their risk increased

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with ascending underweight severity and they were at higher risk of spontaneous than of medically indicated preterm birth. Weight gain during pregnancy seemed to play an important role: a simple but impressive conclusion was that normal weight gain of 0.23–0.68 kg/week had the lowest risk for spontaneous preterm birth.

Pre-eclampsia is still a disease of many mysteries. Even the diagnostic procedures are not always accurate, as shown by Gangaram and colleagues from Durban, South Africa (page 146), who investigated the accuracy of the spot urinary microalbumin/creatinine ratio. They conclude that when compared to the total 24 h urinary protein, neither the visual dipstick nor the dipstick read on the Clinitek 50 system is accurate. Some researchers consider pre-eclampsia to be an immune maladaptation or support the theory that it is caused by an inflammatory process. The latter assumption was investigated by Bhattacharya and colleagues from Scotland, who evaluated records from the Aberdeen Maternity and Neonatal Databank from 1986 to 2006. Women who developed pre-eclampsia in their second pregnancy were compared to a control group who were normotensive in their second pregnancy. An elevated incidence of pre-eclampsia in the second pregnancy was associated with the following factors: inter-pregnancy intervals of six years and more, increased BMI, a history of pre-eclampsia, previous second trimester loss and previous very preterm and preterm birth. Interestingly, a change of partner had a protective effect. The authors conclude that only initial deliveries beyond 37 weeks, irrespective of outcome, protect against pre-eclampsia in a second pregnancy. This is a nice analysis to add to what seems to be the never-ending story of pre-eclampsia.

Reproductive medicine and endocrinology

According to standard teaching, about 60% of spontaneous abortions are associated with chromosomal disorders and in the other 40% it is difficult to find an underlying cause. Nowadays, however, more sophisticated analytical methods allow a deeper insight into the process of implantation, a time of intense molecular interaction between mother and fetus. Haptoglobin (Hp), a polymorphic glycoprotein that has been associated with many inflammatory diseases, appears to have a role in implantation and early embryonic development. Gloria-Bottini and colleagues from Rome (page 153) studied 194 couples with repeated spontaneous abortion (RSA), looking at both maternal and paternal Hp phenotypes. They compared those who had at least one living child and those who had none, and found that if both partners carry Hp2/1 phenotype the probability of producing a live-born infant is diminished. The contribution of maternal Hp appeared greater than that of paternal Hp.

Torsion of the adnexae causes ovarian ischaemia, and the survival of the ovary is dependent on the duration of the ischemic insult and the reperfusion. Erythropoietin (EPO) is a haemopoietic factor which has been shown to have protective effects against ischaemia/reperfusion injury in several tissues. Karaca and colleagues from Erzurum and Kars, Turkey (page 157) created a rat model to evaluate the effect of EPO in experimental ischemia on the biochemical and histopathological changes of the ovary. They investigated EPO administration before or during ischaemia and found that it is effective in reversing tissue damage under these experimental conditions. They conclude that EPO may be useful in protecting ovaries from torsion/detorsion-induced damage in humans.

Gynaecology and gynaecologic oncology

In pre-operative planning it is clearly an advantage to know the histology of the tumour. In general, however, this is not possible with pelvic masses. Yamamoto and colleagues from Kochi, Japan (page 163) investigated in a retrospective study of 253 women the possibility of discriminating a malignant tumour from a benign neoplasm. Starting with malignancy risk indices (RMIs) developed by others, they developed their own model (RMI 4) which incorporates tumour size in addition to the ultrasound score, menopausal score and absolute value of serum CA125. At a cut-off level of 450 the sensitivity was 86.8% and the specificity 91.0%. They conclude that RMI 4 is more reliable than previous RMIs and they recommend it as simple method for preoperative counselling in gynaecological clinics as well as specialised centres. On the subject of predicting risk, we should mention the study by Santoso and colleagues from Memphis, USA, who found that the risk of deep venous thrombosis (DVT) was almost three times higher in cancer patients than among those hospitalised for benign disease. Patients with leg symptoms were screened using Doppler sonography, which proved superior to clinical examination in diagnosing leg DVT.

Violence against women is a major cause of ill-health but despite increasing awareness is often unrecognised in outpatient clinics. We should all take note of the paper from Leithner and colleagues of Vienna (page 168), describing the prevalence of physical, sexual and psychological violence among patients with gynaecological symptoms in a psychosomatic outpatient clinic. Although high rates of violence were expected in this setting, it is nonetheless alarming to read that violence was reported by 39.9% of the patients: physical violence in 25.2%, sexual violence in 13.0%, psychological violence in 23.8%, and all three kinds in 14.8%. Perpetrators were often male family members. Women with such a history are particularly likely to use gynaecological services but this is a plea to all of us to be alert everywhere to the needs of women who silently suffer violence.

Gynaecological urology

Pelvic organ prolapse (POP) is one of the commonest indications for surgery among women in the United States, where its direct surgical costs have been estimated at over one billion dollars per year. On page 177 Subramanian and colleagues from the UK, France and the USA present an interesting analysis of its costs in European countries. In 2005 the rate of admissions was 0.87 per 1000 women in Germany, 1.14/1000 in France and 1.13/1000 in England. Admissions for POP surgery constituted 10.4%, 16.7% and 16.9% of all admissions in Germany, France and England, and respectively 57.4%, 45.0% and 40.1% of all POP procedures included hysterectomy. Not only did the indications for surgery exhibit striking differences, but also the costs to payers: 144,236,557 Euros for Germany, 83,067,825 for France and 81,030,907 for England. It is difficult to explain the variance, but these results should stimulate further studies in these and other European countries.

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