



Editors' highlights

The meetings of the Heads of States in Heiligendamm and in Brussels in June 2007 have undoubtedly demonstrated that the European Community should speak with one voice. To strengthen Europe for the future, finance and manpower on research have to be focussed on selected projects if it is to compete in the global market with the steadily growing regions of Asia and Africa. This is true not only for global business but also for science in many fields including health issues. The creation of *Euroscience* is a promising step in the right direction. Euroscience was founded in 1997 as a 'grassroots' movement open to research professionals, science administrators, policy-makers, teachers, PhD students, post docs, engineers, industrialists, and in general to any citizen interested in science and technology and its links with society. It represents European scientists of all disciplines, including social sciences and the humanities, in the public sector, universities, research institutes as well as business and industry. It is based in Strasbourg and has more than 2000 members across 40 European countries, working through many local sections (<http://www.euroscience.org/>).

Euroscience has created the *Euroscience Open Forum (ESOF)* to promote the European Research Arena (ERA). ESOF also encourages the young people of Europe to consider and develop careers in science, technology and the humanities. ESOF is a biennial event which seeks to showcase European achievements right across the scientific spectrum and serves as an open forum for debates on science-related issues and also as a showcase for European and International research. Through ESOF, researchers and scientists, as well as the general public, are provided with an adequate platform for exchanging views and discussing the challenges and consequences of scientific developments around the world. The Euroscience Open Forum thus promotes, fosters and maintains contacts between associations, professional societies and industry, both within Europe and worldwide. Finally, in the political field, it assists policy-makers in consulting relevant scientists on issues affecting society, including the governance of science. ESOF fosters and promotes science communication. Science journalists and science communicators are key members of the ESOF community and their involvement ensures that as many people as possible grasp how European science and technology enrich our lives and affect us all.

ESOF is a place where researchers can explain and relate their research to a broad audience.

ESOFs are held every second year, hosted by major science cities in Europe: Stockholm in 2004 (<http://www.esof2004.org/>) and Munich, 15–19 July 2006 (<http://www.esof2006.org/>). The forums are interdisciplinary meetings of scientists, young researchers, politicians, policy-makers, innovators, business people, media and communicators. ESOF2008 will be the Third Open Forum which will take place in Barcelona: Euroscience Open Forum (ESOF) 2008—Barcelona "*Science For A Better LIFE*" (<http://www.esof2008.org/>). Euroscience Open Forum 2008 in Barcelona is organised by Euroscience and hosted by the Catalan Foundation for Research and Innovation/Fundació Catalana per a la Recerca i la Innovació (FCRI). ESOF2008, as the main event of EuroScience, brings together Europe's science community. The chairman Prof. Banda, Barcelona says: "*Europe cannot win markets by cheap raw materials, low salaries, low skills and low social security costs. The only option we have open to us is to develop our knowledge potential. Europe must fund the future, not bury its head in the past*". This statement is a challenge for all of us, for researchers in obstetrics and gynaecology as well as for health care providers in Europe.

What is new?

Reviews

"*Why do women live longer than men?*" Eskes and Haanen from Nijmegen investigate this query in an excellent review on page 126. The gender gap is at present 4.2 years and it is expected to increase to 4.8 years in 2050. The analyses of the available literature show that estrogens obviously play a key role in the prolongation of life in females. Estrogens exert a favourable effect upon endothelial cells and haemostatic factors. They increase the expression of antioxidant enzymes which protect against oxidative damage. Age-related telomere attrition, which causes endothelial dysfunction, occurs much more slowly in females compared to males. The authors conclude: "... This cannot explain the gender gap fully. Therefore, life-style and environmental influences may modify the outcome of aging". The steady rise of smoking among women may

indicate such an impact in future. The article is stimulating and worth reading.

Smith and colleagues from Dublin, Ireland (page 134) have investigated in a literature search the quality of systematic reviews of fetal fibronectin and transvaginal cervical length for predicting preterm birth. Ten reviews were identified, of which seven were included in this systematic review of reviews. The conclusion: cervico-vaginal fetal fibronectin and transvaginal sonographic cervical length measurements are clinically useful factors in predicting preterm birth. It would now be challenging to look into the usefulness of these methods in a prospective randomised trial with and without any treatment. Since prematurity is a real problem in obstetrics we would appreciate early results.

Obstetrics and Maternal–Fetal Medicine: It has been known for a long time that excessive fluid load in preterm delivery is associated with pulmonary oedema, especially if combined with tocolytics and corticosteroids. Ogunyemi from Los Angeles, USA (page 143) confirms these results in a case control study. Independent predictors of pulmonary oedema were preterm labor (OR 10.9) (that was the indication for treatment!), tocolytic therapy (OR 4.3) and antenatal corticoid therapy (OR 2.3). In order to prevent pulmonary oedema in cases of premature labor it should be emphasized that the amount of fluids infused must be restricted.

Predicting fetal macrosomia should prevent complications at late gestation and during delivery, i.e. gestational diabetes and shoulder dystocia. The methods that are at present available are not very rewarding. The failure rate for weight estimation is especially high in macrosomic fetuses. Nahum and Stanislaw from Turlock, CA, USA (page 148) propose a new computerized method for “accurately” predicting fetal macrosomia. The sensitivity is however only 75% and the specificity 93%. Will this prediction prevent shoulder dystocia? In a number of legal cases prediction of fetal weight is stressed to the disadvantage of the obstetrician especially in cases of shoulder dystocia combined with cervical plexus palsy. In order to rule out in the future cephalo-pelvic disproportion and shoulder-pelvic disproportion, measurement of the maternal pelvic inlet diameters in relation to fetal diameters is urgently needed. Why not give up the vain attempt to increase the accuracy of weight estimation by ultrasound and concentrate on measurements of parameters of fetal size and maternal pelvic inlet by magnetic resonance imaging?

Antiphospholipid antibodies (APL) in maternal blood as a cause of threatened abortion in the first trimester have been repeatedly investigated. APL are a heterogeneous family of immunoglobulins directed against plasma proteins, including lupus anticoagulants (LAC), anticardiolipin (aCL), antiprothrombin (aPT), and the most recently recognized anti- β 2 glycoprotein I (β 2 GPI). Mezzesimi and colleagues from Siena, Italy (page 164) investigated these antibodies in 77 pregnant patients with threatened abortion and 15 healthy controls. Among the antibodies evaluated, only anti- β 2-

glycoprotein I was significantly more frequent in those women whose pregnancy resulted in spontaneous abortion: 49% versus 19% whose pregnancy went to term. This immunoglobulin seems to be an attractive parameter to investigate in a quest to prevent spontaneous abortion in cases of elevated a- β 2-GPI.

An interesting analysis regarding the outcome of twin pregnancies after in vitro fertilisation (IVF) and ovulation induction (OI) and in controls who conceived spontaneously was conducted by Adler-Levy and colleagues from Beer Sheva, Israel (page 173). Pregnancies after IVF had an increased rate of complications: gestational diabetes (OR 3.1), pregnancy induced hypertension (OR 2.6), PROM (OR 1.9) and premature delivery at 34 weeks of gestation and before: 39.3% versus 33.4%. Unexpected was the increased incidence of fetal malformation in IVF: 12.0% versus 7.4%. In multiple logistic regression analysis maternal age seemed to have no association.

Pregnancy related death is rare in European countries compared to countries in the developing world. Despite the low incidence of maternal death each case has its special tragedy. All credit then to Gissler and colleagues from European countries and the USA (page 179) to have studied the reporting of pregnancy-related and pregnancy-associated death in two European countries, Finland and France, and two states in the USA, Massachusetts and North Carolina. They conclude that the collection of such data is useful for countries with low mortality figures to increase the quality of maternal mortality statistics, since only adequate analysis provides the information to prevent future tragedies.

Reproductive Medicine and Endocrinology: Three papers in this issue are devoted to the “polycystic ovary syndrome” (PCO). Nacul and colleagues from Porto Alegre, Brazil (page 191) emphasize the association of insulin resistance and obesity. Insulin resistance is associated with impaired production and release of endothelium-derived nitric oxide (NO) and increased levels of endothelin 1, both markers of vascular disease. Thirty-one women and 21 age-matched controls were investigated. In PCO patients, insulin level and homeostatic model assessment were negatively correlated with NO production and are not dependent on BMI.

Olszanecka-Glinianowicz and colleagues from Katowice, Poland (page 197) try to answer the question whether the PCO-syndrome is associated with chronic inflammation. They investigated tumor necrosis factor- α (TNF- α), TNF-soluble receptors and IL-6 in 39 obese women with PCO and 34 age-matched obese women. Despite the fact that sTNFR1 and sTNFR2 were significantly higher in PCO patient and IL-6 significantly lower they conclude that PCO is not associated with chronic inflammation.

De Paula Martins and colleagues from Sao Paulo, Brazil (page 203) tested four methods to investigate insulin sensitivity in PCO patients. Using any of these methods provides similar results. The only surprise: the rate of insulin resistance in the PCO group was 44.8–51.4%, compared to

64–79% reported in the literature. A number of questions remain to be investigated especially the definition of PCO.

Gynaecology, Gynaecological Oncology and Urology: The introduction of the tension-free vaginal tape (TVT) by Ulmsten has been a revolutionary step in the treatment of urinary incontinence. It has been of advantage to many women, but if not correctly applied it is also a disadvantage to a few. The gynaecologic urologists thought about finding other routes to apply the tape to prevent the complication of bladder injury by retropubic application. The trans obturator route limits vesical lesions and makes large vessel lesions impossible. Debodinance from Saint Pol sur Mer, France (page 232) applied the trans-obturator sling using two methods, alternating Outside-in (Monarc[®]) and Inside-out (TVT-O[®]) in 100 cases. The success rate, complications and recovery rate after 3 and 12 months were investigated in a

prospective observational open-label study. The author's conclusion is that both trans-obturator routes are equally safe and do not require peri-operative cystoscopic control. The clinical results appear to be equivalent to the rates obtained with retropubic TVT.

Laparoscopic operations are more and more a standard procedure in gynaecological surgery, especially to treat benign adnexal cysts, as conducted by Panici and colleagues from Rome (page 218) and in the diagnosis of chronic pelvic pain, as performed by Drozgyik and colleagues from Pecz, Hungary (page 223). Both authors confirm in their conclusion the advantage of laparoscopy as a preferable method in the management of gynaecologic diseases.

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