

Editors' highlights

Have you heard yet about European Research Area (ERA)-Link, the flourishing networking tool for European researchers, scientists and scholars in the US? It focuses on three types of activity: networking of researchers, information dissemination and helping expatriate researchers to collaborate with colleagues in Europe or to return to rewarding careers in Europe. ERA-Link has now grown to over 3000 members from 24 of the 25 member states in Europe as well as people from many other countries. The largest numbers of members work at universities in the area of biology (26%), with an additional 12% in medicine or veterinary medicine. It is estimated that there are 100,000 European researchers working in the US. This represents a potential asset for European research that has been largely unrecognized until now. Europe wants to build and maintain links with its expatriate researchers. There are many opportunities presently available. Go to <http://cordis.europa.eu/eralink> to learn more about this challenging opportunity for European research.

What's new?

Reviews: In women of fertile age, it often takes a long time to discover that endometriosis, the localisation of endometrial tissue outside the uterus, is the cause of severe pains and complaints recurring at regular intervals. Pain in cases of endometriosis usually starts some days prior to menstruation and disappears again when the bleeding is over. These types of cramps should not be confused with pains starting immediately at the onset of menstruation, which are caused mainly by imbalance between progesterone and estrogens during the second phase of the cycle, uterine malformations or uterine diseases, such as submucous myomas. The treatment of the latter causes is, in general, simple, but, in cases of endometriosis, it is more difficult since the underlying pathophysiology is not well understood. What is the immunological background of the implantation of non-orthotopic cells in the peritoneum, the ovaries, the myometrium and in other organs, such as bones, the lung, intestine and even the brain? Many theories have been suggested and treatments proposed. Surgery, hormones or GnRH analogues are very effective but also have some disadvantages. Based on the theory that prostaglandins are a pathogenetic factor and fatty acids are the precursors of prostaglandins, it has been suggested that a specific diet could influence the disease.

The effect of diet on dysmenorrhea has been investigated in a literature survey and the results are looked at by Fjerbaek and Knudsen from Odense, Denmark, on page 140. Twelve articles were included in their review. The authors conclude that the literature on endometriosis and diet is sparse and inconsistent, and no clear recommendations can be given on what to eat or what foods to avoid to reduce the symptoms, though some studies indicate that fish/n-3-oil might have a positive influence on pain. Further research has to be conducted to lift the curtain over the disease and pave the way for effective treatment.

There are not many methods available to investigate the impact of diminished oxygen delivery to the fetus during pregnancy. Fetal biometry investigates the influence on fetal growth, fetal heart rate the impact on sympathetic/parasympathetic regulation to maintain a constant blood pressure and Doppler flow velocimetry in arterial and venous vessels to observe alterations in the resistance of the vessels to flow. On page 148, Gadelha-Costa and colleagues from Sao Paulo, Brazil, review the literature on Doppler flow in the fetal aorta, fetal middle cerebral artery and umbilical artery. Most of the results since 2000 are a repetition of what has been investigated previously but the authors direct our attention to the fetal aorta, where changes of resistance can be discovered very early, even before changes in the umbilical artery are recognized, and they focus on changes of actual values, such as maximum flow and end-diastolic flow, rather than resistance indices which mix different physiologic parameters.

Obstetrics and Maternal–Foetal Medicine: Routine ultrasound examinations are not conducted in the same way in all European countries. In some, they are done regularly three times during pregnancy, with the first usually between 11 and 14 weeks of gestation, looking at fetal size, fetal movement and other important measures. The question of whether it is sensible to investigate the mother's ovaries in conjunction with screening for nuchal translucency is raised by Yazbek and colleagues from London (page 154). Routine screening found a high number of cysts (25.9%), but most of them had a size of <5 cm (55%), while the remaining 45% had large simple or complex cysts requiring follow up. A total of 33 out of 728 cysts (4.5%) needed surgery. All of them were found to be benign, but 12/33 were dermoid cysts and 19/33 had other benign alterations. The authors conclude that “the policy of routine ultrasound visualization of the ovaries in pregnancy cannot be justified”, but surely it is

justified to care for suspicious findings in the ovaries? We would certainly be interested in the opinion of the majority of readers.

Because of careful screening of blood groups very early in pregnancy and treatment of Rh-negative mothers, perinatal mortality (PM) due to Rhesus incompatibility has decreased tremendously during the past decades. Nardoza and colleagues from Sao Paulo, Brazil, investigated perinatal mortality in Rh alloimmunized patients, comparing the application of amniocenteses ($n = 74$) and Doppler flow measurements ($n = 25$) to assess the severity of fetal anaemia. They found that PM was 12 times higher than in unimmunized patients, but did not differ whether the pregnancy was managed by doppler or by amniocenteses. Perhaps a randomized controlled trial might show an advantage of one method over the other.

It has been known for years that perinatal mortality decreases with advancing gestational age but rises again after the calculated date of birth. In the days before induction of labour, PM was correlated to prolongation of pregnancy and rose exponentially after 14 days until it became incredibly high. Hilder and colleagues from London (page 167) have investigated this issue again. In a large database, they found a 2.95 times higher risk of PM at >42 weeks, but only among nulliparous women and not in multiparous women. They therefore question the policy of routine induction of labor before the 42nd week of pregnancy in parous women. This should be carefully considered, however, under the presupposition that one fetal death due to prolonged gestation is one death too many.

World-wide, the caesarean section (CS) rate is constantly rising for several reasons and a parallel increase in repeat CS rate is being observed. The influence of a history of CS on the management of subsequent pregnancy was investigated by Kwee and colleagues (page 171) over a 1-year period in 38 hospitals in the Netherlands. Willingness to undertake a trial of labour (60–70%), and successful vaginal delivery rates (53–63%) depended on the woman's parity. But trial of labour carried risks of uterine rupture (1.5%) and fetal death (1.2‰) and the risk of uterine rupture increased significantly when labor was induced with prostaglandins alone or combined with oxytocin. What can be concluded from these observations? The authors suggest that guidelines are needed, since the management among the hospitals is so variable.

Basic science in obstetrics is provided by two papers, one looking at PLAC1 mRNA levels in maternal blood at induction of labor (Rizzo and colleagues from Bologna, Italy and Tokyo) (page 177) and the other, from Choi and colleagues in Seoul, on nuclear factor kappa B, COX-2 and matrix metalloproteinase-9 in human myometrium before and during labor. Both papers pages 177 and 182 further our understanding of the mechanisms of labor induced by prostaglandins.

Exact fetal weight estimation would be helpful in many circumstances during labor, especially in the prediction of shoulder dystocia, prolonged labor and neonatal outcome.

Kernaghan and colleagues (page 189) investigated the estimated fetal weight (EFW) and fetal growth velocity in 240 women with type 1 or 2 diabetes mellitus, gestational diabetes and impaired glucose tolerance tested at 26–40 weeks of gestation. EFW has a sensitivity of 80% and specificity of 72% in predicting an LGA neonate and is therefore of limited value in clinical decision-making.

Reproductive Medicine and Endocrinology: Surrogacy is hotly debated in society as a method for fulfilling the wish for a child of one's own. In 2003, a nationwide opinion survey was conducted in Japan by Minai and colleagues (page 193) regarding the pros and cons of gestational surrogacy. A total of 2083 people received a questionnaire and a brochure containing information about assisted reproductive technology (ART), and 1564 people received only the questionnaire. Information about ART promoted disapproval of partial surrogacy and gestational surrogacy, especially in men. The authors conclude that a comprehensive understanding of the applied technology is important before assessing attitudes.

Hepatitis B virus (HBV) infection can cause severe alterations of the liver and even promote carcinoma of the liver. The incidence of HBV infection may vary from country to country and with ethnicity. Elefsiniotis and colleagues from Athens (page 200) conducted a serological and virological profile search for chronic HBV infected women of reproductive age in a Greek population. The overall infection rate was 1.53% and a majority of infected people were of Albanian origin. Among Albanian women the prevalence was 4.9%, among people from Asia 5.5% and from Eastern Europe 1.29%, while the rate for people from Greece was only 0.57%.

Gynaecology, Gynaecological Oncology and Urology: Too many methods are still being used to treat patients with alterations of the urogenital tract. Sacrospinous ligament fixation (SSLF) seems to be effective for patients of all ages with genital prolapse. David-Montefiore and colleagues from Paris (page 209) investigated the post-operative complications, anatomical results, quality of life and sexuality after this treatment in a retrospective longitudinal study on 51 women with a stage III or IV prolapse. The overall complication rate was 17.3% and total patient satisfaction rate after bilateral SSLF was 93%. It would be helpful if the experts in this field would come to a conclusion on which methods should be applied in the future to cure this aggravating disease.

Chronic pelvic pain (CPP) is a disabling disease among many women and accounts for 15% of all referrals to a general gynaecologist. Laparoscopy is considered the standard for diagnosis of pelvic pain, but in many cases no pathology is found. Cox and colleagues from Brighton, UK (page 214), investigated CPP and quality of life after laparoscopy. The results were very discouraging. Women with CPP continue to have pain and low quality of life 12–18 months after laparoscopy. We would appreciate a discussion in this journal about diagnostic procedures and treatment.

“Women with endometriosis do not have more subclinical atherosclerosis than the general population” is the conclusion of a paper by Pretta and colleagues from Genoa, Italy (page 226). They had speculated that the conditions might be linked because oxidative stress is associated with atherosclerosis and has been proven to play a role in the development and progression of endometriosis. Also, both endometriosis and atherosclerosis have tissue macrophages that express specific receptors and these macrophages are exposed to lipoproteins. Despite these speculations, however, women with endometriosis showed no early signs of arterial disease.

The development of optic and operative instruments during the past decades has provided the opportunity to conduct surgery by hysteroscopy, allowing the causes of

abnormal bleeding to be easily diagnosed and treated. In the Netherlands, Van Dongen and colleagues (page 232) investigated the implementation of hysteroscopic surgery in 2003 through a questionnaire sent to 102 hospitals. Responses were received from 82% of all gynaecological departments in the Netherlands and were compared to a survey in 1997. The percentage of hospitals that had adopted polypectomy, myomectomy and endometrial ablation had increased to more than 90% and in teaching hospitals to 100%. One can conclude that hysteroscopy is a standard procedure these days.

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