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Editor's highlights

Editor's highlights first appeared in *EJOGRB* in January 2001, when Professor Jim Thornton took over as editor-in-chief upon the retirement of Professor Tom Eskes. At that time it was part of a Journal section which included opinion, news and lists of forthcoming conferences. The aim was to create a community of readers who would open the printed issue each month and be presented with a Europe-wide perspective on our specialty. Later, when it became clear that the Internet was a more efficient provider of news and conference listings, *Editor's highlights* evolved into its present form – a column directing readers towards a selection of papers which the editor found especially interesting.

Today the overwhelming majority of our readers access *EJOGRB* via the worldwide web, and we are delighted that the Journal's electronic readership is now an order of magnitude greater than its print readership ever was. Technology allows us to monitor which papers attract most attention, and we know that most readers no longer browse the Journal after reading the *Editor's highlights*, but go direct to the papers that interest them. The editors have therefore decided to discontinue this column. This change (strongly supported, we should add, by Professor Thornton) will take effect next month. It will release more space for papers, helping to reduce publication time as the number of submissions to *EJOGRB* continues to increase.

What's new?

Trichomoniasis is the most common sexually transmitted infection, affecting an estimated 11 million people in Europe and more than ten times that number in resource-limited countries. Nevertheless this pathogen has been poorly studied in the past, perhaps because it is not life-threatening. Recent developments in molecular biology, however, have improved our understanding of *Trichomonas vaginalis*, and on page 3 Harp and Chowdhury from Atlanta, USA, discuss these advances in a fascinating and timely review. They point out that as many as one-third of infections in women may be asymptomatic, that the prevalence increases with age, and that infection in women is linked with preterm birth, infertility, and increased susceptibility to HIV and cervical cancer. The authors describe the genetics of *T. vaginalis* and discuss in detail the mechanisms of adhesion and the host response. They also point out that although current treatment with nitroimidazoles is reliable, it is not recommended in pregnancy and the number of resistant strains is increasing.

Expert opinion

Vitamin C has a good public image. It is found in fresh fruit and vegetables, prevents scurvy, is hardly ever toxic and is an antioxidant. There is evidence that antioxidants can protect against a range of conditions including cancer and cardiovascular diseases, and more than a decade ago a randomised trial suggested that vitamins C and E could prevent or ameliorate pre-eclampsia in at-risk women. That study was followed by further large randomised trials but, as Talaulikar and Manyonda from London point out on page 10, most of these have failed to show any benefit. This review discusses the molecular basis of antioxidant use to combat the damage caused by free radicals, and explains why vitamins such as C and E can show vigorous antioxidant activity in the test tube but fail to prevent disease when swallowed. The authors are critical of the "multi-billion dollar 'nutraceutical' industry" that vigorously markets antioxidant supplements, and they argue that the recent large clinical trials have wasted precious research resources. Their Expert Opinion ends with a call for the cessation of clinical trials until more robust laboratory research has been undertaken.

Obstetrics and maternal-fetal medicine

Other attempts to reduce the occurrence of pre-eclampsia have included the use of low-dose aspirin (ASA). Rey and Rivard from Montreal, Canada, comment on page 38 that ASA is effective but studies have varied with regard to the reduction in risk. Aspirin affects platelets by reducing their production of thomboxane A_2, a potent vasoconstrictor, and the authors hypothesised that ASA might be more effective if its dosage were adjusted according to platelet function analyser (PFA) testing. They retrospectively reviewed 270 high-risk women, of whom 159 had received a standard dose of ASA without platelet function testing and 111 had had the aspirin dosage adjusted according to the PFA results. The rates of pre-eclampsia and severe pre-eclampsia were lower in the group which had PFA monitoring and dosage adjustment. The authors advise, however, that PFA testing should not be considered as standard practice until these results have been confirmed by prospective randomised controlled trials.

Birth weight is determined by many factors including not only gestational age but also maternal weight. With maternal obesity becoming a major problem in some developed countries, there are concerns that bigger babies will mean more obstetric complications such as shoulder dystocia and caesarean section. Guidelines

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have been issued about weight gain in pregnancy for women in different body mass index (BMI) groups, but Farah and colleagues from Dublin point out on page 14 that BMI has its limitations in this context. They carried out a prospective study of 184 non-diabetic women, 64% of whom were either overweight or obese. Weight and height were measured digitally in early pregnancy and the women had their body composition assessed at 28 and 37 weeks using segmental multifrequency bioelectrical impedance analysis. Birth weight did not correlate with BMI in early pregnancy or with gestational weight gain (GWG) in the third trimester, nor did it correlate with fat mass at 28 and 37 weeks. It correlated with maternal fat-free mass and with GWG before the third trimester. These findings will be relevant to interventions aimed at optimizing birth weight in obese women, and they suggest that designing such interventions will not be easy.

Reproductive medicine and endocrinology

Intrauterine insemination (IUI) with controlled ovarian hyperstimulation is used as a treatment for some fertility problems such as unexplained infertility. On page 57 Mohamed Maher from Egypt points out that the success of IUI depends partly on the quality of the luteal phase of the cycle. This may be adversely affected by controlled ovarian hyperstimulation, and therefore luteal phase support may be helpful. The author performed a prospective randomized study on 71 patients, of whom 34 started with an unsupported cycle of IUI with ovarian stimulation and 37 started with a cycle supported by 14 days of vaginal progesterone. In the second treatment cycle, the groups crossed over. In total the study included 258 treatment cycles. Pregnancies resulting in live births occurred in 25 supported cycles and 7 unsupported cycles. Thus luteal support appears to be beneficial, but the author cautions that there is a need to investigate this using large double-blind trials with cost-effectiveness analysis.

Polycystic ovarian syndrome (PCOS) is a common cause of infertility, and even when pregnancy is achieved there is an increased risk of complications such as early pregnancy loss and preterm birth. In non-pregnant women the insulin-sensitising agent metformin is used to treat PCOS, and there are reports that metformin treatment during pregnancy can reduce miscarriages and improve outcome. Its safety in pregnancy, however, is not yet established. On page 63 De Leo and colleagues from Siena, Italy, report a prospective study of 98 women with PCOS treated with metformin throughout pregnancy, and 110 normal pregnant controls without PCOS. Rates of complications including miscarriage, diabetes and pre-eclampsia were lower in the women treated with metformin, and no serious deleterious side-effects were noted.

Gynaecology and gynaecological oncology

Surgical training is making increasing use of simulation but the equipment is expensive and simulators tend to be concentrated in large academic centres. Ahlborg and colleagues from Sweden have investigated the possibility of transferring parts of the training to less expensive platforms suitable for peripheral hospitals, where they could help maintain the skills of surgeons with a small workload. Research has found, however, that some aspects of surgical performance do not improve with practice, suggesting that innate ability is a factor – in other words, that some individuals have "a good pair of hands". On page 73 the Swedish team describe a study of 13 consultants who worked in community hospitals and were familiar with basic gynaecological laparoscopic procedures such as tubal occlusion. Their visuospatial ability, assessed by the mental rotations test, was found to correlate with their performance in the simulator, measured by factors such as operating time and ovarian diathermy damage. The authors suggest that visuospatial ability testing may help to design individual training programmes.

The standard medical treatments for endometriosis are gonadotrophin-releasing hormone analogues and systemic progestogens, but these are limited by side-effects. Local delivery of progestogen by the levonorgestrel intrauterine system (LNG-IUS) has fewer side-effects and a long duration of action, and pilot studies have shown that the LNG-IUS can improve symptoms of minimal to moderate endometriosis. How it does so is unclear, however. On page 101 Engemisse and colleagues from Leicester, UK, report a prospective study of endometrial and endometriotic biopsies from 28 women before and after 6 months' treatment with the LNG-IUS. After treatment, oestrogen and progesterone receptor expression, assessed by immunohistochemistry, was significantly decreased in the glandular and stromal components of both eutopic and ectopic endometrium. The authors suggest that further analysis of gene expression patterns in endometriotic cells may lead to more focused treatment.

Gynaecological urology

Mesh repair of pelvic organ prolapse is an effective new surgical treatment which is currently the subject of much research. Two papers in this issue examine different aspects of this procedure. On page 107 Brocker and colleagues from Germany report a study of 36 women undergoing anterior and/or posterior mesh repair at a mean age of 65 years. The patients were assessed before operation, and at 4 and 12 weeks postoperatively, by clinical examination, quality of life questionnaire and dynamic magnetic resonance imaging (dMRI). The anatomical results, assessed clinically and by dMRI, were improved at 4 weeks and quality of life was improved at 12 weeks. Dynamic MRI has to be carried out with the patient in the supine position but the authors found it a reliable method of diagnosis. They comment that this imaging tool captures the dynamic behaviour of all three pelvic compartments and provides information that is easily accessible to multiple disciplines such as gynaecology and urology.

Full thickness rectal prolapse, which most commonly affects elderly women, shares many risk factors with pelvic organ prolapse (POP). Rectal prolapse may be repaired abdominally or transanally. When it presents together with POP it is uncertain whether the two conditions should be repaired concomitantly or separately. On page 113 Shveiky and colleagues from Washington, DC, present four cases of concomitant rectal prolapse and POP treated with vaginal colpopexy using synthetic mesh. The patients were aged 63–78: two had anterior and posterior mesh and two had posterior mesh only. At 6–44 months' follow-up, signs and symptoms of both types of prolapse were resolved in all patients, but the authors conclude that further studies are needed to determine the best approach when these conditions coexist.

J. Drife