

This section with compiled by
Dr. Mahmoud Shawer and
Prof. Ahmed Badawy

1.FDA approves drug to prevent preterm labor

Hydroxyprogesterone caproate (Makena) has been approved to reduce the risk for pre-term delivery, the FDA announced. The drug is intended for women with a singleton pregnancy who have had at least one spontaneous preterm delivery. It is not approved for women with a multiple pregnancy or other risk factors for preterm delivery. Makena is injected into the hip once a week, beginning at 16 weeks of pregnancy and up to 21 weeks. In a trial of some 460 women, rates of delivery before 37 weeks were 37% in women randomized to Makena and 55% in controls. A follow-up study showed no developmental differences between children born to mothers in the two groups. Reported side effects include pain, swelling, and itching at the injection site and hives, nausea, and diarrhea. Serious adverse reactions were uncommon: one case each of infection at the injection site and pulmonary embolism

2. Real family planning

The Dutch are amongst the most diligent family planners in the world. Recent data reveal most deliveries occur in 25 – 35 year olds with the mean age at first delivery being 29 years old. They also have far fewer women having babies over the age of 40 than half a century ago (Sheldon BMJ 2008; 337:134).

This circumspect reproduction has now taken a further brave new step forward with the recommendation that women in the Netherlands can have their oocytes frozen for non-medical reasons. This means a woman choosing to delay a pregnancy can have her young oocytes preserved for postponed assisted reproduction thus increasing her chances of successful in vitro fertilization later on. Sheldon (BMJ 2010;341:c4823) reports that the decision should not open the door to delayed conception without “considerable reasons” and the upper age limit of embryo transfers will remain at 45 years. This can be viewed as expensive or a logical extension of a woman’s right to controlling her reproduction. You decide. Offering and promoting such service in our country needs plenty of aspects to be studied, religious, social financial, and counselling.

3.Risk after a caesarean section

Does a caesarean section prejudice the next pregnancy? There are increased risks of uterine rupture and placenta praevia but it is unclear as to whether the subsequent pregnancy outcome is compromised or not. Wallin et al (BJOG 2010;117:1088-97) looked at perinatal mortality rates and low Apgar scores in infants whose predecessor had been delivered abdominally and found that they were more at risk when compared with those whose predecessors had been delivered vaginally. On closer inspection the reasons for the greater risk was found to be related to the medical condition associated with the caesarean section per se and not the fact that the uterus was scared.

4. Transdermal HRT and stroke

It appears that the mode of delivery and the dosage strengths of hormone replacement therapy (HRT) do make a difference to stroke risk. The UK General Practice Research database is a rich source of information about women who visit their GPs regularly and provides data on over 800 000 postmenopausal women who have or have not been taking HRT and who were followed up for 7 years. The researchers (Renoux et al BMJ 2010;340:C2519) found the overall risk rate for stroke was 3 per 1000 per year and carried out a nested case-control study to assess the influence of transdermal or oral HRT on stroke risk. They found that low dose HRT delivered via a transdermal patch did not increase the risk of stroke whereas high dose patches and oral HRT did.

Estrogen plus progesterone or estrogens alone to women without a uterus have fallen from favour since the Women’s Health Initiative publications but informed opinion has been sceptical about extrapolating the results to all forms of HRT. The data in this latest paper show that oral HRT or high-dose patches are associated with a 1 per 1000 per year increase in stroke risk but not low-dose patches. More and more it seems that low doses of HRT given transdermally starting soon after the menopause do not carry stroke and

cardiovascular risk anything like the WHI findings and the outcomes of this study support this more optimistic view and it may well turn out that there is actually an advantage.

Transdermal HRT is too expensive to be taken for years for average income Egyptian woman. Let us hope it may be manufactured in our country with a lower price.

Another study suggests that losing weight can improve menopausal symptoms. Huang et al (Arch Intern Med 2010;170:1161-7) conducted a study linking weight loss and urinary incontinence but also noted an improvement on hot flushes in those who lost weight. The controls did not find a decrease in bothersome flushes to the same extent so women should be encouraged to try lifestyle changes to assist at this difficult time.

5. Genetics and cancer risk

The human genome has massive potential for defining which people are susceptible to certain diseases and which people are not. The problem is that specific abnormalities in the structure of genes seldom indicate more than a predisposition towards a condition. Even combining abnormalities known to be associated with a condition has not prospectively yielded “at risk” groups or individuals who go on to develop the condition.

For example there are at least 12 genetic markers (specific nucleotide polymorphisms or SNPs) linked to breast cancer but tracking them individually or in combination does not yield useful clinical data (Travis et al Lancet 2010; 375:2143-51). But other approaches may be more fruitful so Willet et al (JAMA 2010; 304:69-75) looked at a group of individual’s risk of cancer and the telomere length of their cells. Telomeres are the nucleoprotein complexes at the ends of chromosomes. As cells reproduce themselves the DNA of each chromosome is faithfully replicated except for the telomeres which shorten with each cell cycle. By measuring the telomere length it is possible to gauge the cells age or its senescence.

Short telomere length may also indicate chromosomal instability or malignant potential so the researchers measured nearly 800 individual’s telomere lengths (in leucocytes) and followed them up for 10 years to see if they developed cancers and recorded their mortality. They found the shorter the telomere length the higher the person’s risk of suffering from cancer and dying from his/her disease. The greater the degree of telomere shortening – the higher the risk. The findings are not near clinical application yet but do indicate the direction of future research.

6. Smoking in pregnancy

The following can be negatively affected by smoking in pregnancy: growth restriction, preterm labour, later academic performance, deep vein thrombosis, stroke, pulmonary embolism, myocardial infarction, influenza, pneumonia, asthma, gastro-intestinal ulcers – and now it seems pelvic pain. Biering et al (BJOG 2010; 117:1019-26) point out that pelvic pain is the most frequent reason for sick-leave during pregnancy in Denmark. Its aetiology is unknown but it has been linked to smoking via vasoconstriction and local ischaemia so the authors tested the possible connections using their National Birth Cohort data. Linking smoking to pelvic pain in over 100 000 women they found an association that persisted after adjustments for background and lifestyle factors. There was a dose-related pattern in those who gave up in early pregnancy and those who continued to smoke.

It is still considered shameful for an Egyptian woman to smoke in public in both rural and urban areas.. This probably limited the number of pregnant smokers in our country to less than 4% according to a personal communication with a ministry of health official. The number of primiparous Danish women who smoke is relatively low at 15% whereas the statistics for the entire population of Europe (male and female) are 50% have never smoked, 20% have given up and 30% smoke (BMJ 2010;340:C2908).

7. Weight and diabetes

Anyone wondering when the global obesity epidemic would turn into a diabetic epidemic need wonder no longer. It is here. A whole issue of the Lancet in June/July traces its ravages through not only the developed world but China “the diabetic capital of the world” to its hold in sub-Saharan Africa (Mbangi et al Lancet 2010;375:2254-66). Its effects on fertility, pregnancy, oncology and incontinence mean that our speciality will be much involved in weight and blood sugar control for generations to come.

There is a strong association between being overweight and the risk of diabetes. With whole populations increasing their BMI it is not surprising that the incidence of type 2 diabetes is increasing. As overweight or obese people enter old age they raise their fat mass, lose muscle mass, redistribute adipose tissue and their height reduces.

The consequences of overweight and aging conspire to cause concerns about trends in health and diabetic control. Failing to control weight in middle and old age has clearly been shown to raise the risk of diabetes (Biggs et al JAMA 2010; 303: 2504-12) with its dangers of metabolic, cardiovascular, urinary, cancer and other health consequences.

8. Diet and cancer risk

You are what you eat. Everything in moderation. Eat your greens. These homilies may seem unscientific but large studies suggest that a balanced diet does decrease your risk of metabolic disorders, cardiovascular disease and cancer. The European Prospective Investigation into Cancer and Nutrition (EPIC) study followed up half a million people from 12 countries for nearly a decade to see if a diet rich in fruit and vegetables really does reduce the risk of cancer and found that indeed it does – to a modest extent (Bofetta et al J Natl Cancer Inst 2010; 102: 529-37).

They showed that increasing fruit and vegetables intake by 200g per day was associated with a 3% reduction of cancer risk. The result was less than anticipated. Experts weighing-in on these findings are quick to reiterate that diet is only part of a healthy lifestyle with not smoking, maintaining a healthy weight and exercising regularly being as important as a sensible diet. A medium size apple weighs 300g so maybe “an apple a day” does keep the doctor away.