MRI superior to other tests in detecting breast cancer

In women with BRCA1 and BRCA2 genetic mutations, magnetic resonance imaging (MRI) is more sensitive for detecting breast cancers than mammography, ultrasound or clinical examination alone.

Although breast surveillance is recommended in women with predisposing genetic mutations, many tumours are detected at a relatively advanced stage. Researchers from Ontario compared the sensitivity and specificity of mammography, ultrasound, MRI and clinical examination in 236 women who underwent between one and three annual screening sessions. Clinical examination was performed every six months.

A total of 22 cancers were detected (16 invasive and six ductal carcinoma in situ). Of these, 17 (77 per cent) were detected by MRI versus eight (36 per cent) by mammography, seven (33 per cent) by ultrasound and two (9.1 per cent) by clinical examination. The sensitivity and specificity were 77 and 95.4 per cent for MRI, 36 and 99.8 per cent for mammography, 33 and 96 per cent for ultrasound, and 9.1 and 99.3 per cent for clinical examination respectively.


Injury no bar to gymnasts entering competitions

Gymnasts continue to compete even when they have symptoms of injuries, which could increase the risk of re-injury or occurrence of a more severe injury.

To investigate whether gymnasts compete at high level despite symptoms from an injury, researchers from Sweden recruited 188 males and females competing in the Swedish Cup for seniors and juniors. They completed questionnaires on the day of competition. More than half the gymnasts (58 per cent) competed despite having symptoms of an injury on the day of competition. More seniors than juniors competed with such symptoms (p=0.006). Two out of three team gymnasts (65 per cent) reported symptoms from the lower extremities and 22 per cent reported back symptoms.

Recurrence of an injury at the same site (re-injury) was reported by 55 per cent of the gymnasts.


Latest aneurysm repair technique shows promise

In patients with large abdominal aortic aneurysms (AAA), endovascular repair reduces operative mortality but longer term results are needed before clinical practice is changed.

Endovascular aneurysm repair (Evar) is a new technology to treat patients with AAA when the anatomy is suitable. But there is uncertainty about how it compares with conventional open surgery. Evar can be done percutaneously with graft and stents introduced via the femoral arteries. A UK research team undertook a multicentre randomised trial involving 1,082 patients undergoing elective AAA surgery.

The mean age of the patients was 74 and mean diameter of AAA 6.5cm. A total of 1,047 (97 per cent) patients underwent AAA repair and 1,008 (93 per cent) received their allocated treatment. The 30-day mortality in the Evar group was 1.7 per cent (nine of 531) versus 4.7 per cent (24 of 516) undergoing open repair (odds ratio 0.35). By per-protocol analysis, the 30-day mortality for Evar was 1.6 per cent (eight of 512) versus 4.6 per cent (23 of 496) for open repair (odds ratio 0.33). Secondary interventions were more common in patients treated by Evar (9.8 versus 5.8 per cent). The authors say that any change in clinical practice should await durability and longer term results.


MAOBI s have good profile in early Parkinson’s disease

Monoamine oxidase type B inhibitors (MAOBI s) reduce disability, the need for levodopa and the incidence of motor fluctuations without substantial side effects or increased mortality in people with early Parkinson’s disease.

Although MAOBI s have been used in the treatment of early Parkinson’s disease, there are conflicting results from research studies. To clarify the situation, researchers from Birmingham and Aberdeen undertook a meta-analysis of 17 randomised trials involving 3,525 patients.

No significant differences in mortality were found between patients on MAOBI s and controls. Patients randomised to MAOBI s had significantly better total scores, motor scores and activities of daily living scores on the Parkinson’s disease rating scale at three months compared with those taking placebo. They were also less likely to need additional levodopa (odds ratio 0.57) or to develop motor fluctuations (odds ratio 0.75). There were no differences between the groups in incidence of side effects. The authors caution however that further long term trials comparing MAOBI s and other anti-Parkinson drugs are needed.