

EUROPEAN SOCIETY FOR THERAPEUTIC RADIOLOGY & ONCOLOGY LONDON, 8–12 MAY

Hormone plus radiotherapy halves risk of death in prostate cancer

In men with locally advanced prostate cancer, 6 months of neoadjuvant androgen deprivation therapy improves overall and cancer-specific survival, and reduces risk of metastases. These are the 10-year results of TROG 96.01, reported at ESTRO and published in *Lancet Oncology* (Denham et al, 2011).

The trial randomized 818 men with locally advanced prostate cancer to either 6.5–7.0 weeks radiotherapy, radiotherapy plus 3 months neoadjuvant androgen deprivation therapy, or radiotherapy

plus 6 months of neoadjuvant androgen deprivation therapy.

Neoadjuvant androgen deprivation therapy comprised monthly goserelin 3.6 mg and three times daily flutamide 250 mg, starting 2 months before radiotherapy in the 3-month group and 5 months before radiotherapy in the 6-month group.

After a median follow up of 10.6 years, compared with radiotherapy alone, 6 months neoadjuvant androgen deprivation therapy reduced distant progression by 51% ($P=0.001$), pro-

tate cancer-specific mortality by 51% ($P=0.0008$) and all-cause mortality by 37% ($P=0.0008$). In contrast, 3 months deprivation therapy had no such effects.

Lead investigator Professor Jim W Denham of the University of Newcastle, Australia commented: 'Hormonal side effects were very limited indeed, being confined to hot flushes and temporary reductions in sex drive. Effectively, a large improvement [in outcomes] was bought at the cost of very limited side effects.'

'Six months of hormone therapy before and during radiotherapy will be a particularly useful option for men with locally advanced prostate cancer who are unlikely to tolerate longer courses of hormone treatment either due to age or ill health,' concluded Professor Denham.

Sue Lyon

Denham JW, Steigler A, Lamb DS et al (2011) Short-term neoadjuvant androgen deprivation and radiotherapy for locally advanced prostate cancer: 10-year data from the TROG 96.01 randomised trial. *Lancet Oncol* 12(5): 451–9

Partial breast irradiation as radiotherapy for early breast cancer

Up to one quarter of patients with early-stage breast cancer could benefit from partial breast irradiation using electron intraoperative radiotherapy (ELIOT), according to 5-year follow up of women treated at the European Institute of Oncology, Milan.

Between 1999 and 2008, 1822 women with primary breast tumours of less than 2.5 cm in diameter underwent quadrantectomy followed by sentinel node biopsy and,

where nodes were positive, axillary dissection. ELIOT, comprising a single-fraction of 21 Gy delivered over 1–2 minutes, was administered in the operating room immediately after the procedure.

After 5 years, overall survival was 97.5%; 2.3% of patients developed true local recurrence and 1.3% a second tumour in another quadrant of the same breast. ELIOT was well tolerated. Nearly four fifths (78.7%) of patients reported

no side effects, and there were only two cases (0.1%) of severe fibrosis.

Reporting the results at ESTRO, Dr Roberto Orecchia commented: 'Based on our experience, intraoperative partial breast irradiation can be proposed as an alternative to whole-breast irradiation. Suitable patients will usually be aged over 50 years, with tumour no larger than 2 cm, T1 stage, possibly with negative axilla, and in our experi-

ence, with a good biological profile; i.e. luminal A instead of luminal B tumour and no over-expression of HER-2. This group of patients could represent 20–25% of breast cancer patients undergoing radiation therapy.'

The Milan team expects to publish results of a randomized study comparing conventional external beam radiotherapy and ELIOT in early-stage breast cancer in the near future.

Sue Lyon

Smoking cessation reduces side effects in head and neck cancer

Head and neck cancer patients who continue to smoke during radiotherapy suffer a greater number of and more severe side effects than patients who are able to quit. This comes from outcomes of 795 patients followed up by the Danish Head and Neck Cancer Group.

The study included 578 men and 217 women treated with

radiotherapy between 2000 and 2009. Sixty had never smoked, 290 were ex-smokers (cessation between 2 years and just before radiotherapy) and 445 were smokers.

There was a significant correlation between smoking at the start of treatment and dysphagia and oedema at 12 months. Moderate to severe

dysphagia was reported by 31% of smokers, compared with 10% of never-smokers and 20% of ex-smokers, while moderate to severe oedema occurred in 22% of smokers, but only 5% of never smokers and 14% of ex-smokers.

Presenting the study at ESTRO, radiotherapy nurse Dorte Wiinholdt commented:

'Our findings emphasize the importance of advising patients to quit smoking before they start treatment, and providing patients with support to maintain their smoking cessation.'

Although 60% of smokers quit during radiotherapy, one in three resumed smoking while they were being treated.

Sue Lyon