

Detection of recurrence was assessed in 39 patients with previously treated thyroid cancer. Of the 10 patients with proven recurrence, 7 were positive for DNA methylation; 6 of the remaining 29 patients were also positive. These might not be false-positive results, say the authors—conventional techniques are known to miss some cases of thyroid cancer recurrence. Prospective studies are needed to validate these results; sensitivity and specificity might be improved by additional DNA methylation markers.

Caroline Barranco

Original article Hu S *et al.* (2005) Detection of serum DNA methylation markers: a novel diagnostic tool for thyroid cancer. *J Clin Endocrinol Metab* [doi:10.1210/jc.2005-1810]

Pregnancy hormones increase maternal risk of breast cancer

Breast carcinogenesis is known to be influenced by hormones that are markedly elevated in pregnancy. Most such hormones are produced in the placenta. Previous studies had found that indications of placental impairment were associated with reductions in maternal risk of developing breast cancer; Cnattingius *et al.* report similar results, and suggest that placental weight could be an indirect marker of maternal breast-cancer risk.

Data were obtained from four Swedish population-based registers. The cohort included 314,019 primiparous women who gave birth between 1982 and 1989, and for whom prospective follow-up data through to 2001 were available. In all, 2,216 women developed breast cancer; almost all were diagnosed before age 50. A subset of 121,285 women had a second single birth during the study period.

The risk of maternal breast cancer increased with increasing placental weight. There was a 38% increase in risk with placental weight >700 g, compared with <500 g, over the whole cohort ($P=0.001$). Among women aged 30 years or older at first delivery, the increase in risk was even greater (70%; $P<0.001$). Breast-cancer risk doubled for women whose placental weight was >700 g in two successive pregnancies (compared with women with two successive placental weights <500 g). Placental weight was found to be a better indicator of maternal breast-cancer risk than birth weight.

These findings are only applicable to women with premenopausal breast cancer, say the authors; however, the results support the hypothesis that pregnancy hormones have an effect on maternal risk of breast cancer.

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Original article Cnattingius S *et al.* (2005) Pregnancy characteristics and maternal risk of breast cancer. *JAMA* 294: 2474–2480

HRT can cause urinary incontinence in older postmenopausal women

Randomized, controlled trials have shown conflicting results on the effects of hormone-replacement therapy (HRT) and the risk of urinary incontinence in postmenopausal women. To try to clarify this issue, Steinauer *et al.* investigated the effects on incontinence of oral conjugated estrogen plus medroxyprogesterone acetate among 1,208 women, who had enrolled in the Heart Estrogen/progestin Replacement Study (HERS).

HERS was a randomized, placebo-controlled, double-blinded trial that evaluated the effects of HRT in postmenopausal women with coronary disease. Overall, 597 women who reported no loss of urine during the 7 days before baseline were assigned to HRT and 611 to placebo. Participants were initially followed up at 4 months and thereafter at 1-year intervals.

During 4 years of treatment, 64% of women taking HRT reported weekly incontinence compared with 49% of women in the placebo group ($P<0.001$). This difference was evident at the fourth month of follow-up and throughout the 4-year study period. The odds ratio for weekly incontinence in women taking HRT compared with placebo was 1.6 (95% CI 1.3–1.9; $P<0.001$). In women under 60 years of age, the effect of HRT on the risk of urinary incontinence was minimal.

The authors conclude that women over 60 years of age taking estrogen plus medroxyprogesterone acetate have an increased risk of urinary incontinence, and suggest that women considering this specific treatment regimen should be informed of the risk.

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Original article Steinauer JE *et al.* (2005) Postmenopausal hormone therapy. Does it cause incontinence? *Obstet Gynecol* 106: 940–945