

# Gynaecological Oncology News

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## Green tea to prevent ovarian cancer

Ovarian cancer is a common and often lethal disease. Finding ovarian cancer at an early stage is difficult and at the moment there is little women can do to prevent ovarian cancer. The oral contraceptive pill will reduce the ovarian cancer risk by 50% and prophylactic surgery will virtually eliminate the ovarian cancer risk for those at greatest risk (e.g. strong family history).

Women who have been diagnosed with ovarian cancer also want to know what they can do to stay well after treatment. New research points to the power of green tea. Its active ingredient is Catechin, which is especially abundant in green tea. In a recent meta-analysis published in *Gynaecologic Oncology*<sup>1</sup>, results from 17 in-vitro, 1 in-vivo, four case control and one cohort study were summarised.

In 11 of the 17 laboratory studies, using several ovarian cancer cell lines, downregulation of a number of proteins involved in inflammation, cell signalization, cell motility and angiogenesis, were reported. Most commonly, Catechin appeared to induce ovarian epithelial cell inhibition mediated by apoptosis. Women in the four case control studies (one from China, two from the USA, and one from Australia) showed that drinking of green tea reduced the risk of developing ovarian cancer by approximately 30%.

In one study, mice were inoculated with ovarian cancer cells. Half of the mice were given green tea to drink; the other half drank water only. The mice that were fed green tea had 60% lower tumour volume than the ones that received water. Finally, a Chinese cohort study followed 244 women diagnosed with ovarian cancer and showed decreased mortality in women who drank green tea daily after diagnosis.

It seems that a randomised trial to confirm these laboratory and observational results would be needed. Until such a trial gets funded, I might start drinking green tea myself.

1. Trudel D et al. **Green tea for ovarian cancer prevention and treatment: A systematic review of the in vitro, in vivo and epidemiological studies.** *Gynecologic Oncology*, Volume 126, Issue 3, September 2012, Pages 491–498.

## Criteria for BRCA testing

Women diagnosed with advanced ovarian cancer should be increasingly offered genetic testing for BRCA. Testing could not only have an impact on the patient herself (breast screening) but also on first-degree family members. To identify women who should be offered genetic testing is still challenging.

Patients diagnosed with high-grade (grade 3) serous ovarian cancer at a young age, patients with a personal or family history of breast and/or ovarian cancer and combinations of these are strong indicators of BRCA mutation.

A new indicator is the response to neoadjuvant (upfront) chemotherapy. If the serum CA125 was very high and drops to very low levels in a matter of weeks of treatment, I would suspect a BRCA mutation and I will offer referral to a clinical geneticist.

Overall one in eight patients diagnosed with advanced ovarian cancer has an underlying BRCA mutation that is often not recognised.

## Gynaecology Surgery Blog

*Thank you very much for the encouraging and positive feed back I have received over the last couple of months for the Blog I started on my website (<http://obermair.info/latest-news/blog>). It is meant to share ideas and recent advances in gynaecological surgery amongst specialists and GPs. Comments are most welcome.*



If you wish to participate in 2013 or if you wish to enquire about sponsorship packages please email: [contact@gyncan.org](mailto:contact@gyncan.org)

Please do not hesitate to give me a call if you wish to discuss an aspect of the above or a specific patient with me.

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