

Natural Progesterone May Help Survival in Breast Cancer Patients!

Mohr PE, Wang DY, Gregory WM, Richards MA, Fentiman IS. *Serum progesterone and prognosis in operable breast cancer*. Br J Cancer. 1996 Jun;73(12):1552-5.

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Several studies have now shown that [women with operable breast cancer undergoing tumour excision during the luteal phase of the menstrual cycle have a better prognosis](#) than those having surgery during the follicular phase. As part of a prospective study of prognostic factors in breast cancer, blood was taken at the time of surgery. Between 1975 and 1992 this was available from 289 premenopausal women within 3 days of tumour excision. All were treated by either modified radical mastectomy or breast conservation including axillary clearance and the date of last menstrual period (LMP) was known in 239 (80%) cases. Blood samples were assayed for both oestradiol (E2) and progesterone (P). Because of the wide inter-individual variation in E2 levels there was no clear relationship between E2 and LMP. However, using a running mean smoothing technique the expected cyclical variation could be discerned. There was no significant association between E2 and survival. Smoothing of the P data yielded a pattern similar to the normal hormone profile. [Those cases with a progesterone level of 4 ng ml⁻¹ or more had a significantly better survival than those with a level < 4 ng ml⁻¹](#). This was especially clear in node-positive patients ($P < 0.01$). The possibility of misclassification of menstrual cycle status, because of misreported LMP, has been minimised by applying an independent hormonal measurement (P) of cycle activity. This parameter will also identify women who may be undergoing anovular cycles. Thus this study has confirmed that a raised level of progesterone at the time of

tumour excision is associated with an improvement in prognosis for women with operable breast cancer.