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EDITORIAL

ROLE OF CA-125 AS A TUMOUR MARKER IN OVARIAN CANCER

CA-125 refers to the 125 attempts made by Bast et al (1983) to develop a specific monoclonal antibody to an epithelial ovarian cancer. The antibody is elevated (>35 units/ml) in the sera of approximately 80% of epithelial ovarian cancer patients. Unfortunately CA-125 is a nonspecific marker. It is elevated in patients with many other forms of malignancy, as also in many benign conditions. Bast et al (1983) report it to be elevated in about 60% of patients with ovarian cancer and 20% to 25% of patients with other solid malignancies. CA-125 levels have been known to be elevated in benign gynaecological

conditions such as endometriosis, uterine fibroids, pelvic inflammatory disease, benign ovarian cysts, and inflammatory diseases involving the peritoneum, pleura and pericardium.

CA-125 has been proposed by Li et al (1989) as a tumour marker for the early detection of ovarian cancer and as a screening test for the general population, particularly for postmenopausal women and women with a strong family history of ovarian cancer. CA-125 is positive in 85% of nonmucinous adenocarcinomas, and its levels correspond with the clinical course. Hence it provides a helpful parameter for follow-up

evaluation of treated cases, and to judge the response of the tumour to therapy, as also to detect early recurrence.

An elevated CA-125 titre (>35 units/ml) and a suspicious sonogram in a postmenopausal woman has a very high predictive value, but unfortunately, in premenopausal women, the most common cause (80%) of false positive CA-125 is endometriosis. Other causes include pelvic inflammatory disease, uterine fibroids, congestive cardiomyopathies, and non-malignant ascites.

Davies AP et al (1993) investigated 124 women with adnexal masses prior to surgical exploration. They reported that CA-125 values for benign masses ranged upto 760 units/ml. Hence laboratory studies are indicated in women of the reproductive age with pelvic masses. These should include pregnancy test, complete blood count, ESR, Pap-test and testing of stools for occult blood. The value of CA-125 in premenopausal women with a pelvic mass has been widely debated, since a number of benign conditions including uterine leiomyomas, PID, pregnancy and

endometriosis can cause an elevated CA-125 and thus lead to unnecessary surgical intervention. The Yale Medical School recommends a colour doppler evaluation additionally in all premenopausal patients prior to selection of the cases for surgery. Only if the CA-125 levels are elevated and the colour doppler studies are indicative of ovarian cancer or there are presence of additional high risk factors, then and then alone should the surgeon proceed as for a case of ovarian cancer. In all other cases of adnexal masses in premenopausal women in whom there is an elevated CA-125, and the colour doppler studies do not suggest malignancy, it may be prudent to treat the patient conservatively for endometriosis/PID for 4 to 6 weeks. In case the response to conservative therapy is not encouraging, then an exploratory laparotomy for extirpation of the adnexal masses seems warranted. The chances of encountering a hitherto unsuspected malignancy in such masses is indeed very small. Such a policy would prevent many an avoidable laparotomy.

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