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CORRESPONDENCE

IN REPLY: We thank Querleu and colleagues for their interest in our manuscript and for sharing their experience with two interesting case reports. We agree with Querleu et al that markedly elevated CA-125 levels must be interpreted with care as they may be associated with benign pelvic pathology. Our experience would suggest that this is not uncommon.

Several reports have highlighted the occurrence of increased CA-125 levels in Meigs' and pseudoMeigs' syndromes. In 1995, we wrote that all 11 reported cases of Meigs' syndrome were associated with elevated CA-125 levels. The CA-125 levels varied between 42 and 7,000 U/mL. Meigs' syndrome is a condition in which a benign and solid ovarian tumor is associated with ascites and hydrothorax. We concluded that "it is important to remember that a pelvic neoplasm in a woman presenting with hydrothorax, ascites, and elevated CA-125 levels might be benign and that this condition can rapidly be resolved with surgical removal."[1] As of the date of this publication, we have not come across a case of Meigs' syndrome with normal serum CA-125 levels. In pseudoMeigs' syndrome, other benign cysts or teratomas of the ovary, as well as uterine leiomyomata, are associated with ascites and hydrothorax. In 2001, we also reported on pseudoMeigs' syndrome with a large uterine leiomyoma and a markedly elevated serum CA-125 (785 U/mL).[2] The increased serum CA-125 level in Meigs' and pseudoMeigs' syndrome most probably results from a combination of factors including peritoneal mechanical inflammation from the benign tumor, a large volume of ascites, and pleural effusion. Furthermore, other causes of peritoneal inflammation are known to increase serum CA-125 levels (eg, endometriosis, pelvic inflammatory disease, and abdominal surgery).[3] Pulmonary and cardiac conditions can also induce pleural or pericardial inflammation resulting in an increase of CA-125. In the IOTA study, 29% (164 of 567 patients) of benign tumors were associated with elevated serum CA-125 levels using a CA-125 cutoff of 30 U/mL, whereas we found normal serum CA-125 levels in 58% (30 of 52 patients) and 33% (11 of 33 patients) of patients with borderline and stage 1 invasive ovarian cancers, respectively.[4]

We agree that CA-125 is not specific to ovarian malignancies, and that serum levels are often raised in other malignancies. A common denominator is peritoneal inflammation. Immunohistochemical CA-125 detection of the peritoneum has been described.[5]

We differ in our views to Querleu et al who conclude that the main role for CA-125 levels is to select those patients who definitely need to be managed by a gynecologic oncologist. Our data suggest that the use of mathematical models to distinguish between benign and malignant ovarian tumors before surgery is superior to single serum CA-125 measurements, especially in premenopausal patients. Moreover, pattern recognition (subjective evaluation of gray scale and Doppler ultrasound findings) by experienced ultrasound examiners is clearly superior to using CA-125 levels for this purpose.[4]

The optimal approach to characterizing ovarian pathology will, to some extent, depend on the skill set available in individual units. In departments where there is good quality ultrasound, CA-125 has a limited role. If the quality of ultrasound is poor, it is possible that a significantly raised serum CA-125 (in the absence of clear clinical signs of advanced cancer in the pelvis-abdomen) should lead to ultrasound examination by an expert before deciding on the surgical approach.

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AQ: B

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

The author(s) indicated no potential conflicts of interest.

AQ: C

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