

6. Bast RC, Feeney M, Lazarus H, Nadler LM, Colvin RB, Knapp RC. Reactivity of a monoclonal antibody with human ovarian carcinoma. *J Clin Invest* 1981;68:1331.
7. Kabawat SE, Bast RC, Bhan A, Welch WR, Knapp RC, Colvin RB. Tissue distribution of a coelomic epithelium related antigen recognized by the monoclonal antibody OC125. *Lab Invest* 1983;48:42A.
8. Nozawa S, Ohta H, Izumi S, Hayashi S, Trutsui F, Kurihara S, Watanabe K. Heat stable alkaline phosphatase in the normal female genital organ—with special reference to the histochemical heat-stability test and L-phenylalanine inhibition test. *Acta Histochem Cytochem* 1980;13:521-530.
9. Goldstein DJ, Rogers C, Harris H. A search for trace expression of placenta-like alkaline phosphatase in non-malignant human tissues: demonstration of its occurrence in lung, cervix, testis and thymus. *Clin Chim Acta* 1982;125:63-75.

Reply to Davies et al.

To the Editors:

Davies and his colleagues raise an interesting question. In the early characterization of the OC125 antibody by means of indirect immunofluorescence, no binding was observed among nonmalignant tissues.¹ However, in subsequent studies using the 20-fold more sensitive biotin-avidin immunoperoxidase technique, trace amounts of CA125 have been detected in selected normal human tissues including fallopian tube, endometrium, and endocervix.² Although this is similar to that observed with placental alkaline phosphatase,³ there are many differences in the tissue distributions of placental alkaline phosphatase and CA125, which suggests that they are distinct. In contrast to placental alkaline phosphatase,⁴ when the biotin-avidin immunoperoxidase technique is used, CA125 is not detected in normal lung, testis, or thymus.² There is also a lack of OC125 reactivity with placental villi and normal ovary² although placental alkaline phosphatase has been consistently observed in these tissues.¹ CA125 is also not detected in decidua. Therefore, although there are some similarities in the tissue distribution of CA125 and placental alkaline phosphatase, sufficient differences are present to suggest that these are distinct determinants. Furthermore, preliminary experiments assaying for alkaline phosphatase activity in both supernatant and purified (perchloric acid soluble) antigen fractions with CA125 levels as high as 10,000 U/ml have been negative (Klug, T. L., Ph.D., personal communication).

Jonathan M. Niloff, M.D.

Robert C. Knapp, M.D.

Robert C. Bast, Jr., M.D.

Department of Obstetrics and Gynecology
Brigham and Women's Hospital
75 Francis Street
Boston, Massachusetts 02115

REFERENCES

1. Bast RC, Feeney M, Lazarus H, Nadler LM, Colvin RB, Knapp RC. Reactivity of a monoclonal antibody with human ovarian carcinoma. *J Clin Invest* 1981;68:1331.
2. Kabawat SE, Bast RC Jr, Bhan AK, Welch WR, Knapp RC,

Colvin RB. Tissue distribution of a coelomic-epithelium-related antigen recognized by the monoclonal antibody OC125. *Int J Gynecol Pathol* 1983;2:275.

3. Nozawa S, Ohta H, Izumi S, Hayashi S, Trutsui F, Kurihara S, Watanabe K. Heat stable alkaline phosphatase in the normal female genital organ—with special reference to the histochemical heat-stability test and L-phenylalanine inhibition test. *Acta Histochem Cytochem* 1980;13:521-530.
4. McLaughlin PJ, Travers PJ, McDicken IW, Johnson PM. Demonstration of placental and placenta-like alkaline phosphatase in nonmalignant human tissue extract using monoclonal antibodies in an enzyme immunoassay. *Clin Chim Acta* 1984;137:341-348.

Ruptured corpus luteum with hemoperitoneum

To the Editors:

In their discussion of the management of ruptured corpus luteum with hemoperitoneum, Hallatt, Steele, and Snyder (*AM J OBSTET GYNECOL* 1984;149:5) make no mention of operative laparoscopy. In the case of a patient who is not in shock, if surgical intervention is indicated at all, laparoscopy should be primary and usually the definitive operative procedure. Laparotomy should be reserved for patients in shock from internal blood loss or for situations complicated by extensive pelvic or intraperitoneal adhesions.

A hemorrhagic corpus luteum can generally be ablated electrosurgically, by unipolar (occasionally by bipolar) techniques. Any one of a number of available laparoscopic electrosurgical "pick up" instruments is suitable for such a purpose. A cyst can be fenestrated and biopsied. The double or multiple puncture technique lends itself to such operative maneuvers. The Behrman needle (available from Elmed Inc., Addison, Illinois) is also frequently useful to stabilize the ovary. Most of the old blood of the hemoperitoneum is unclotted and readily aspirated. Fresh bleeding can be prevented from clotting by irrigation with a heparinized saline solution (for instance, 1000 U/1000 ml).

When a more extensive surgical procedure is indicated than can be achieved by laparoscopic maneuvers alone, consideration should be given to the technique of combined laparoscopy and colpotomy^{1,2} (also unpublished observations). Laparotomy should be a relatively infrequent procedure in the management of ruptured corpus luteum with hemoperitoneum.

While I have no statistical evidence to prove this, it is my strong clinical impression that laparoscopic ovarian surgery results in considerably fewer adhesions and is followed by a more rapid recovery than laparotomy. The only disadvantage of operative laparoscopic management is that concomitant appendectomy cannot ordinarily be performed.

Hans Freistadt, M.D., Ph.D.

2721 Olive Highway, Suite 5
Oroville, California 95965

REFERENCES

1. Cherny WB. Colpotomy is alive and well. *Ariz Med* 1974;31:754.
2. Cole GR Jr. The posterior colpotomy. *J Arkansas Med Soc* 1967;63:371.