tle et al.,[1] in a series of patients from whom amniotic fluid had been collected within 72 hours of delivery, reported only three of 532 (0.6%) babies developed respiratory distress syndrome when phosphatidylglycerol was present.

It is of interest that it is documented[2] that the diagnostic value of phosphatidylglycerol may be valid only when the phospholipids are measured by two-dimensional thin-layer chromatography. However, Semmer et al.[3] report an analysis with the use of one-dimensional thin-layer chromatography without the prechromatography step of Cotton and Spillman. In 159 transabdominal amniotic fluid samples the phosphatidylglycerol indicated a 98% prediction rate for absence of respiratory distress syndrome with a 1.8% false positive result corrected to 0%; they concluded that the presence of >3% phosphatidylglycerol by means of Painter's[4] method of readily available one-dimensional thin-layer chromatography is consistent with fetal lung maturity. The advantages of the unidirectional method are a shorter procedure time, the ability to analyze multiple samples on a single plate, and the simplicity of a single-solvent system. Whether greater accuracy for phosphatidylglycerol interpretation is dependent on standard quantitative evaluation of phosphatidylglycerol or the removal of pseudo phosphatidylglycerol from amniotic samples may still require investigation.

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Are CA125 and placental alkaline phosphatase the same antigen?

To the Editors:

We have read with interest the paper entitled "Elevation of serum CA125 in carcinomas of the fallopian tube, endometrium, and endocervix" (AM J OBSTET GYNECOL 1984;148:1057), and it would appear that the monoclonal antibody OC125 has many properties similar to monoclonal antibodies directed against placental alkaline phosphatase[1] (also unpublished observations). Both CA125 and placental alkaline phosphatase are membrane-bound glycoproteins and the 'M' form of placental alkaline phosphatase has a similar molecular weight as CA125.[2] Their distribution in various tumors is similar,[3-5] although as far as we are aware placental alkaline phosphatase has not been reported in association with fallopian tube carcinoma. CA125 was initially reported as being absent from all normal human tissues, including fallopian tube, cervix, and endometrium,[6] but a later study found it to be present in these tissues[7] with a distribution identical to placental alkaline phosphatase.[8] Placental alkaline phosphatase has also been demonstrated in normal lung, testis, and thymus.[9] However, no comment was made in the later study[7] about the expression of CA125 by these organs. Both placental alkaline phosphatase and CA125 are found in association with inflammation,[1,7] and a coelomic epithelial origin is suggested for both.

Using the monoclonal antibody $NDOG_2$, which recognizes the three common allelic forms of placental alkaline phosphatase, we have found placental alkaline phosphatase in association with 60% of endometrial carcinoma, 60% of ovarian carcinoma, and 30% of cervical carcinoma—a roughly similar distribution to CA125. Have the authors investigated the possibility that their monoclonal antibody binds a placenta-like alkaline phosphatase activity and may therefore be equated with one or many of the forms of placental alkaline phosphatase present in normal and tumor tissue?

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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 ovary[2] 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).

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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.

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