

Unsure About an Ovarian Mass? Use Ultrasound

BY ALICIA AULT

Associate Editor, Practice Trends

ASHEVILLE, N.C. — Ultrasound can be an important tool in classifying suspicious ovarian masses, said Dr. Angela Gantt, who spoke here at the Southern Obstetric and Gynecologic Seminar.

Thanks to a burgeoning problem with obesity, it has become more difficult to determine which masses may be dangerous by feel alone, said Dr. Gantt, of the department of obstetrics and gynecology at the University of North Carolina at Chapel Hill.

"If you feel something abnormal, ultrasound helps you determine what course to take," she said. According to Dr. Gantt, 13%-21% of women who have a suspicious mass end up having surgery, so it's important to determine the nature of the mass. Ultrasound can be used to rule out a malignancy because it offers high sensitivity. Unfortunately, it is not very specific.

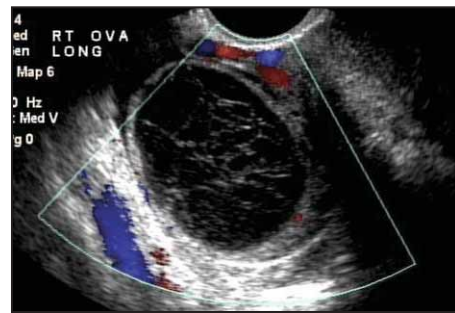
It takes a skilled technician to properly interpret an exam, but even so, the technology offers many advantages: It is ubiquitous, offers information quickly, and can distinguish physiologic from pathologic processes, said Dr. Gantt.

Among the pearls offered by Dr. Gantt: If an ovary is surrounding a mass, it is probably not a cancer; solid masses should be the subject of more imaging or surgical intervention; a simple cyst of less than 4 cm can be managed conservatively; a larger cyst puts the ovary at risk; pay particular attention to a solid mass in a woman over age 50, as 80% of cancers are

diagnosed in this group; and never rule out a pregnancy in women aged 13-65.

The most common finding is a simple cyst, which is almost always benign and includes follicular cysts, corpus luteal cysts, ovarian surface inclusion cysts, and para-ovarian/paratubal cysts. On ultrasound, these are generally thin-walled (less than 3 mm), have oval-shaped or circular walls, no solid components, no septations, and no internal vascular activity, said Dr. Gantt. Generally, these cysts are observed. For premenopausal women, if cysts are less than 4 cm, a follow-up ultrasound is not generally recommended; at 4-7 cm, a follow-up scan can be done in 10-12 weeks. Surgical evaluation is recommended in cysts larger than 7 cm.

Recommendations are slightly different for postmenopausal women, she said. Cysts of less than 3 cm should receive a repeat ultrasound in 10-12 weeks and again in 6 months and every year if they are stable. At 3-5 cm, a follow-up scan should be done at 10-12 weeks; if stable,

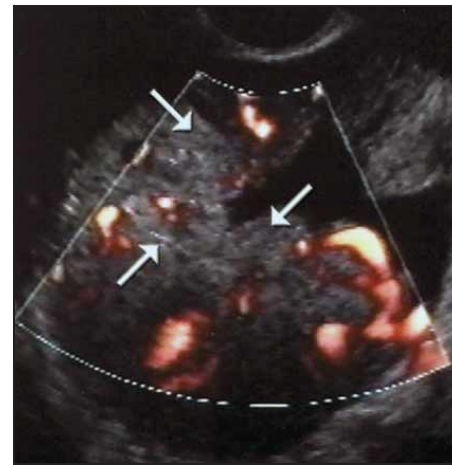


Normal ovarian tissue (crescent sign) is a marker for nonmalignant process.

the physician should weigh a follow-up ultrasound or surgical evaluation. Surgery is recommended for cysts larger than 5 cm in these women, she said.

Ultrasound can be an especially good tool for more complex masses, which can be classified with Timor's scoring system, which assigns a numerical score based on the inner wall features, wall thickness, septa, and echogenicity. Often, a peritoneal pseudocyst can mimic complex multicystic ovaries. The pseudocysts are common in patients with a history of pelvic inflammatory disease or abdominal surgery.

Hemorrhagic corpus luteum can be difficult to distinguish from malignancy. Typically, it presents as a spiderweb-like pattern, said Dr. Gantt. With Doppler, it becomes clear there is no vascular activity within the cyst, and the contents tend



Cystic and solid components with hypervascularity may mean malignancy.

to morph with any probing. Repeat ultrasounds should be conducted, as the condition tends to resolve within two cycles.

Endometriosis is often confused with hemorrhagic corpus luteum. Ultrasound can be used to support a clinician's diagnosis, but it's not as good at confirming the condition until it is at a later stage, Dr. Gantt said. The test will show a cyst with thickened walls and echogenic foci in the walls, along with no vascular activity.

Similarly, the technology is not as accurate in diagnosing pelvic inflammatory disease in its early stages, she said.

Ultrasound is helpful for distinguishing adnexal myomas, which also can be confused with solid tumors. Doppler can be used to identify vasculature to the uterine cavity.

The most common benign ovarian mass is a mature teratoma. Its size generally makes it symptomatic, though symptoms are variable, said Dr. Gantt. As it gets larger, there is a risk of ovarian torsion. On ultrasound, it may be very dense, so the key is to look for the "tip of the iceberg" sign, which will be hyperechoic with posterior shadowing. It may also show as hyperechoic speckling or as diffuse dots and lines within the cyst.

Finally, malignancies will be solid, though extremely variable, with irregular outlines or walls, and thickened cyst walls and septations of greater than 3 mm. There may be papillary projections into the cyst from the cyst wall. And the vascular pattern and flow—as shown by Doppler—is extremely abnormal and irregular. ■

Early Programs Urged to Avert Youths' Sexual Risk Taking

BY DIANA MAHONEY

New England Bureau

Sexually risky behaviors on the part of adolescents is nothing new, but the age at which these behaviors begin is. In fact, new data suggest that sexual risk taking of often begins in middle school.

Baseline data collected in spring 2005 from 4,457 middle school students aged 11-14 years at 14 urban schools participating in Project Connect, an 8-year multilevel intervention study, showed that more than 9% of the students surveyed reported ever having sexual intercourse, and 8% reported ever having oral sex. In total, about 12% reported any sexual activity. Of those students who reported having had intercourse, 36% were aged 11 or younger at first sex, 27% were 12 years old, 28% were 13 years old, and 9% were aged 14 or older. Additionally, of those who reported having had intercourse, 43% reported having had multiple sex partners.

Given their young age at sexual onset, "these youth are at very high risk for adverse health outcomes," Project Connect investigator Christine J. DeRosa, Ph.D., said earlier this year at the annual meeting of the Society for Adolescent Medicine in Boston. As such, "behavioral and health education are imperative for all youth beginning early in middle school, and the involvement of parents, health care providers, and community leaders is also critical."

The goal of such interventions should be to assist those youth who have already engaged in some sexual activity to return to abstinence, said Dr. DeRosa of Health Research Association Inc., a University of Southern California affiliate that is facilitating the Centers for Disease Control-sponsored project. "For the majority of youth who have not engaged in sexual activities, the goal should

be to further delay the onset of sexual initiation."

How the interventions should look and be implemented is a matter of much debate. Should they focus on abstinence or contraception? Should they be school or clinic based? Should they be voluntary or mandatory?

In reality, the "best" intervention is one that identifies and targets the range of risk and protective factors that influence initiation of sex, number of partners, condom use, and contraception use, and this will vary depending on the individuals or populations being served, according to Douglas Kirby, Ph.D., a senior research scientist with ETR Associates in Scotts Valley, Calif.

In a 2001 report for the National Campaign to Prevent Teen Pregnancy called "Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy" (www.teenpregnancy.org/resources/data/pdf/emerswsum.pdf), Dr. Kirby reviewed the results of 300 studies on risk and protective factors across multiple domains, from which emerged a complex picture of the antecedents of adolescent sexual risk taking.

At the community level, education, employment, income, and crime rate are important predictive factors. At the family level, family structure, dynamics, and values play a role. And at the individual level, age, hormones, peers, emotional well-being, relationship history, sexual abuse history, and attachment to school, religious groups, and proactive community organizations have an impact.

In the review, Dr. Kirby identified four groups of effective intervention programs. These included sex and HIV education programs that not only stated the target

norm—whether abstinence or contraception—clearly and frequently with factual information to support it, but also engaged the youth in activities, such as role playing, to model, practice, and personalize the norm. Also effective were some programs within health, family planning, or STD clinics that similarly expressed clear norms, as well as focusing on perceived barriers, providing backup information, and offering structured follow-up.

Certain service-learning programs that include both intensive voluntary service in various capacities (tutors, teachers' aides, nursing home assistants) and ongoing small group discussions about the service, with or without discussion about sexual or contraceptive behavior, also had a demonstrable impact. The last group was long-term intensive programs with multiple components—including family life support, sexuality education, academic guidance, employment, opportunity for self-expression, and health care—in which norms were clearly stated and supported and staff consciously developed close relationships with the adolescents.

Although diverse in their focus and implementation, most of the effective intervention strategies share a conceptual framework built on social norms and an adolescent's sense of connection to those expressing the norms, Dr. Kirby said. "If a group has clear norms for or against sex or contraceptive use, then adolescents associated with this group will be more or less likely to have sex and use contraceptives depending on the norm," he said. The more closely an adolescent feels connected to the group, the greater the impact the group's norms will have. ■

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