

Unexplained Bleeding? Think Sonovaginography

BY SUSAN BIRK

CHICAGO — The instillation of 25-50 cc of ultrasound gel into the vaginal vault before endovaginal or transperineal sonography can aid in the diagnosis of a wide range of abnormalities, according to a diagnostic radiologist.

These abnormalities would be invisible or too difficult to delineate with standard sonographic methods or would be missed on pelvic examination, said Dr. Samuel C. Johnson of the Hutzel Women's Hospital in Detroit.

The instillation technique, referred to as sonovaginography, provides a contrast medium and vaginal distention analogous to the inflation of the abdomen with gas in laparoscopy, greatly facilitating definition of the vaginal wall, he said.

Dr. Johnson said he has been using this technique in his practice for approximately 1½ years as an adjunct to routine sonography to better delineate or confirm the presence of a suspected abnormality in the cervix or vagina, or to investigate cases of unexplained vaginal bleeding.

In isolated cases, a referring ob.gyn. will order sonovaginography without transvaginal ultrasound to assess an abnormality found on physical examination, he said in a poster presentation at the annual meeting of the Radiological Society of North America.

"This is a very difficult area [to image clearly] just on routine vaginal ultrasound," Dr. Johnson said in an interview. "You tend to get artifact just from the curvature between the cervix and the vagina. Also, on ultrasound, the cervix and the vagina are very similar in echotexture. You can't discriminate them just based on their echogenicity. That's why I think [sonovaginography] is tremendously helpful."

Safe, inexpensive, and "a very simple maneuver," according to Dr. Johnson, the technique can identify cervical polyps, fistulas, congenital vaginal septa, vaginal cysts, vaginal ulcers, and other conditions that otherwise could go undetected.

In cases of unexplained bleeding, for example, sonovaginography is "a useful addendum to routine vaginal ultrasound for identifying any potential lesions that could be causing the symptoms," he said.

The technique has enabled him to diagnose several cases of an abnormality that often manifests in unexplained bleeding—vaginal prolapse of the fallopian tube after laparoscopic hysterectomy. Women who



Initial transvaginal sonogram shows a normal cervical canal (arrow) without a mass.

have undergone this relatively conservative surgery and who return to work and regular activities relatively quickly are at increased risk of developing a dehiscence in which the fallopian tube herniates through the separation, extends into the vagina, becomes irritated, and bleeds. He said that this abnormality has never been reported on routine ultrasound.

Other types of abnormalities, such as polyps in the distal cervix—especially those protruding through the external os, will likely be seen only with sonovaginography, Dr. Johnson said.

"I have plenty of cases where routine ultrasound looks completely normal, and on sonovaginography, we can see the polyp at the external os. You're not going to see it in a nondistended vagina. Sonovaginography can better delineate the extent of the mass and the associated vascularity, and aid in the removal of that lesion."

The technique also can assist in differentiating a vaginal leiomyoma from a malignancy by determining whether a palpable abnormality on the vaginal wall originates in the vaginal mucosa or the vaginal muscularis, he said.

He described a case of vaginal cancer referred for sonovaginography by a radiation oncologist who was planning brachytherapy and needed to pinpoint a lesion's depth from the vaginal lumen. The information was not obtainable on MRI; however, sonovaginography provided precise dimensions.

A study by researchers at the University of Sassari (Italy) found distension of the vagina with saline to be a reliable method for the assessment of rectovaginal endometriosis (*Fertil. Steril.* 2003;79:1023-7).



Sonovaginography delineates a polyp (arrows) protruding through the external os (arrowhead).



A thin-walled cyst (C) is in the anterior vaginal wall on sonovaginography, separate from the vaginal canal (v).

However, according to Dr. Johnson, saline tends not to provide sufficient distention because it leaks quickly from the vagina.

Dr. Johnson said that he began using the technique after noticing the clear delineation of the cervix and proximal vagina during distension of the vaginal fornices at the end of saline infusion sonohysterography. After attempting, with poor results, to distend the vagina of several subsequent patients with saline, "I recalled how a large dollop of [ultrasound] gel was useful in scanning structures closely related to the skin or in scanning through the umbilicus," he said.

Dr. Johnson and his colleagues are conducting a prospective study of sonovaginography for the diagnosis of unexplained bleeding.

He disclosed that he has no financial conflicts of interest related to his poster presentation. ■

HPV Misunderstood, Feared in One Border Community

BY PATRICE WENDLING

Hispanic men and women living on the United States–Mexico border have little understanding about the human papillomavirus and its role in the etiology of cervical cancer, according to a small prospective study.

Not only were there very low levels of knowledge among these residents, but their misconceptions and confusion continued even after they were given some basic information about HPV and cervical cancer, Maria Fernandez, Ph.D., said in Carefree, Ariz., during a press conference sponsored by the American Association for Cancer Research. For example, participants tended to compare HPV with HIV and other sexually transmitted infections, and were confused or unaware that men could have HPV and transmit it.

She reported on 30 Hispanic women

and 11 Hispanic men without a diagnosis of HPV who lived in Rio Grande Valley colonias (unincorporated border settlements) and participated in focus groups in Brownsville, Tex. The mean age was 41 years among the women (range, 20-74 years) and 39 years among the men (range, 19-76 years). The average annual income for a family of four in these semirural neighborhoods was \$13,000. About 60% of participants had not completed grade school.

Analysis of the Spanish-language focus group transcripts revealed that attitudes and concerns about HPV differed by gender, said Dr. Fernandez of the division of health promotion and behavioral sciences at the University of Texas in Houston. Women in particular viewed the disease with fatalism, interpreting a diagnosis of HPV as a diagnosis of cancer. They expressed their fears of cancer

and their belief that, once diagnosed, it is "essentially a death sentence." The women said they would be reluctant to disclose their HPV status to their partners because they believed they would be accused of infidelity.

Men initially expressed anger at the possibility of an HPV diagnosis, attributing it to infidelity, Dr. Fernandez said. After a brief explanation about the ambiguity of HPV transmission, they ascribed their initial reaction to cultural ideals of machismo. Women also said that machismo would lead to reactions of anger and accusations of infidelity.

Dr. Fernandez acknowledged that the border communities and colonias face unique challenges, and that the findings of this small, qualitative study should not be generalized to other Hispanics or Mexican Americans.

"On the other hand, it raises some in-

teresting questions about what we've heard in many other studies about cultural norms, such as things like machismo and the way we've traditionally interpreted this concept," she said. "As we saw in these focus groups, there's sort of an initial reaction, but then people talked about standing by their partner."

Clues about these cultural norms and beliefs are essential to the design and implementation of successful and badly needed interventions for HPV and cervical cancer prevention.

"You have to be very cautious in terms of generalizing these findings, but many of the populations that are suffering increased incidence of HPV and cervical cancer and increased mortality are in this area," Dr. Fernandez said.

The study was funded by the National Institutes of Health. The authors reported no conflicts of interest. ■