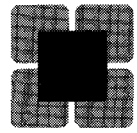

WILLIAM S. WILKE, MD, EDITOR

SURGEON'S SKILL KEY TO OVARIAN CANCER MANAGEMENT

In the past year, ovarian cancer has been the subject of public debate and heightened patient awareness, partly because of comedienne Gilda Radner's death due to this cancer. Women are being advised to demand that they be screened for this disease, despite the lack of good screening tests and the misleading information that certain tests might provide when used for screening.

SCREENING AND DIAGNOSTIC LIMITATIONS

One such test is the serum tumor marker CA 125, which indicates the serum level of an antigen secreted by ovarian cancer cells. It is a valuable test for patients known to have ovarian cancer, since it can be used to monitor the response to therapy or to detect recurrence of disease. However, it has no value as a screening test because, even in advanced disease, CA 125 is elevated in only about 80% of patients. Furthermore, the marker is not specific for ovarian cancer: it is elevated in the presence of many malignancies. And most important, it is not specific for malignancy: Any condition that irritates the perineal lining, including endometriosis, alcoholic cirrhosis, or pelvic inflammatory disease, will cause an elevated CA 125.

A test with somewhat more potential is vaginal ultrasonography. The problem with this test as a screening tool is its difficulty in identifying subtle changes in the ovary that would indicate early-stage cancer, and its difficulty in differentiating these changes from normal cyclic changes.

A woman with a family history of ovarian cancer (two first-degree relatives who had the disease) has at least a 50% chance of developing ovarian cancer. In that setting, it is reasonable to consider screening tests. However, most ovarian cancers are not familial.

Ovarian cancer is notoriously difficult to diagnose. Fewer than 20% of patients are diagnosed at stage 1 (disease confined to the ovary), when the 5-year survival is 90% to 95%. More than 80% of patients present at stage 3 (disease throughout the abdominal cavity) or stage 4 (metastasis to distant sites). If symptoms develop at all, they do not occur until the disease has advanced to stage 3 or 4.

TREATMENT: BE AGGRESSIVE

Keys to the management of ovarian cancer are selection of a competent surgeon (one who specializes in gynecologic oncology), appropriate staging of the disease, and multimodal therapy.

The literature prior to about 1985 indicates that the survival rate for stage 1 ovarian cancer is about 65%. This is incorrect, because patients involved in these older studies were not properly staged. Proper staging requires an abdominal incision, not a bikini incision, so that the surgeon can examine the paraaortic and pelvic nodes, inspect the liver and diaphragm, perform pelvic and abdominal washings, and biopsy or resect the omentum—all in addition to complete resection of the tumor. With a low-lying incision, the surgeon cannot see the rest of the abdomen or do the biopsies or washings necessary for proper staging. Without staging, the medical oncologist has no idea how to treat the patient.

With proper staging by a surgeon, the survival rate for stage 1 disease is 90% to 95%. But in the United States, fewer than 50% of women with ovarian cancer are operated on by surgeons competent to do the operation. The surgeon must be able to aggressively resect ("debulk") the tumor, be able to work safely around the ureters, and be able to resect portions of the bowel, if necessary.

Even though surgical resection alone will not cure most patients with ovarian cancer, studies based on retrospective data show that the major factor controlling the response to chemotherapy and survival is the volume of tumor present at the start of chemotherapy.

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A 5- to 6-month course of chemotherapy must follow the operation in most patients.

Of all the solid tumors, ovarian cancer is one of the most responsive to cytotoxic chemotherapy. Cisplatin has been used, although it has serious toxic effects. Carboplatin, a newer agent, is virtually identical in therapeutic effect but is less toxic. The response rates associated with either agent approach 70% to 80%. Approximately 50% of patients have no clinical evidence of disease at the end of the therapeutic course, but relapse is common and most patients ultimately die of complications of progressive cancer.

As already noted, patients with stage 1 disease have the best prognosis. Indeed, in younger women diagnosed with stage 1 disease who wish to maintain their fertility or childbearing potential, it may be reasonable to consider either unilateral oophorectomy to preserve fertility, or bilateral oophorectomy and preservation of the uterus for in vitro fertilization.

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SUGGESTED READING

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A STRATEGY FOR THE SYNCOPE WORKUP

The patient who presents with syncope (temporary loss of consciousness and postural tone) or orthostatic hypotension (a blood pressure drop upon standing) could have one of several problems. If the diagnostic workup is not carefully thought out, both time and money will be wasted before the patient receives appropriate therapy.

THE WORKUP

In general, the workup should include a screening tilt test, determination of blood volume, and evaluation of hemodynamics. The advent of noninvasive radionuclide techniques facilitates the assessment of hemodynamic indices in an outpatient setting. Results of these studies will indicate whether the cause is autonomic, homeostatic, or cardiac dysfunction and will guide the selection of other diagnostic studies. A complete workup generally must include input from specialists in cardiology, neurology, and electrophysiology.

AUTONOMIC DYSFUNCTION

The hallmark finding of autonomic insufficiency is a blocked Valsalva maneuver. The blood pressure continues to fall and does not reach a plateau during phase 2 of the maneuver; during phase 4, because of a lack of vasoconstriction, there is no "overshoot" in blood pressure level.

Patients with autonomic dysfunction have a typical response to the tilt test. When the table is tilted up, their blood pressure drops continuously; it does not reach a plateau. When the table is tilted back down, the blood pressure rises, and it overshoots because the patient is unable to regulate the total peripheral resistance. That is why, when attending a patient who has fainted, it is important to put the head down gradually, but not all the way to 0 degrees. If the patient has autonomic insufficiency, the blood pressure could overshoot and a stroke could result.

VASOVAGAL SYNDROME

Vasovagal syndrome is a possible cause if there is a history of recurrent fainting preceded by nausea. On the tilt test, the initial blood pressure response is stable at first, followed by a precipitous drop in both heart rate and blood pressure. The patient will go into asystole if the tilt test is continued. The clinical dilemma with this syndrome is that it can happen at any time, and with varying frequency. It is difficult to decide whether and when to treat with a pacemaker, since the syndrome occurs more frequently in adolescents, and when to rely on common sense and reassurance. Instead of treating right away, it may be more practical to pursue additional testing in an effort to identify a treatable underlying cause, such as low blood volume or peripheral venous pooling.

HYPOVOLEMIA

Although patients with idiopathic hypovolemia seem to have a higher incidence of vasovagal syncope, it is not the blood volume but the *distribution* of the blood volume that determines the risk of syn-

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