

Clinical Challenge: Dx, Tx for Inflammatory Breast Cancer

— This rare but rapidly progressing form of the disease can be misdiagnosed

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Inflammatory breast cancer is one of the rarest forms of breast cancer, representing 1%-5% of all newly diagnosed cases. The rarity of its occurrence, differences from other more commonly occurring breast cancers, and its rapid progression, can make it challenging to diagnose and effectively treat, noted Jennifer M. Matro, MD, of the University of Pennsylvania in Philadelphia.

"Most women [with the disease] do not necessarily have a hard lump -- instead they may have swelling or redness of the skin of the breast," Matro explained. "The breast may also get bigger compared with the other side, and it usually happens relatively quickly."

It is the lack of a palpable mass that may lead to initial misdiagnosis, she said. Women who experience these symptoms will often visit their primary care physician or their ob/gyn instead of an oncologist.

"Physicians may tend to think about more common diagnoses like infection, and prescribe a course of antibiotics, which, of course, will not work," Matro said.

Misdiagnosis may also occur in women who have recently given birth, said Halle Moore, MD, of the Cleveland Clinic.

"Inflammatory breast cancer can often look like a red, infected, inflamed breast, and someone at risk of mastitis or infection because of nursing may be misdiagnosed," Moore explained.

In some cases, a woman with a known breast mass or breast cancer who does not seek treatment can present with a breast similar to what inflammatory breast cancer looks like; however, the criteria for an inflammatory breast cancer diagnosis are specific: a rapid onset -- sometimes within a few days or weeks -- of redness and swelling that includes at least one third of the breast and that may be present either with or without a lump. A cancer diagnosis is confirmed by biopsy.

A specific diagnosis of inflammatory breast cancer is a clinical diagnosis, Moore emphasized. When symptoms persist in spite of antibiotics for suspected mastitis or when there are no risk factors for a breast infection, imaging with mammogram or ultrasound may be advised. The imaging may not show a mass, but it may show skin thickening or lymph node involvement. A biopsy of the skin, of a suspicious mass or of a suspicious lymph node can lead to histopathologic verification of cancer.

Treatment Plan

All inflammatory breast cancers are diagnosed at stages III or IV by definition, Moore said. Like other breast cancers, treatment of inflammatory breast cancer is modified based on hormone receptor status and HER2 status.

"For patients who are healthy, we almost always start with chemotherapy as a first treatment, and most patients will get multimodality treatment," she continued. "If the patient is HER2-positive, treatment will also include HER2-directed treatments such as trastuzumab and pertuzumab."

Patients with triple-negative or hormone-receptor-positive disease will receive similar chemotherapy regimens, and those women with HR-positive disease will also be candidates for hormone-blocking therapy down the road.

Because of the aggressive nature of inflammatory breast cancer, chemotherapy is initiated upfront to try to control the cancer prior to surgery, Matro noted.

"You want to start treatment relatively quickly, because the longer the delay the higher the risk of developing metastatic disease. With most other breast cancers, a delay of a week or 2 isn't necessarily the difference between a curable and incurable breast cancer, whereas, in inflammatory breast cancer, these delays could be the difference," Matro said.

Women with good clinical response to treatment will be eligible for mastectomy, she noted. Although historically, the standard has been to not offer reconstruction for these patients, at least not right away, more recent small series have shown there may not be a significant risk associated with reconstruction at the time of surgery.

"The main reason that we haven't done it historically is because the risk of recurrence is so high," Matro said. "We don't want to put patients through a big surgery, like flap surgery, only to have a recurrence and have another surgery to remove the reconstruction."

In addition, all eligible patients will also undergo radiation following surgery, and radiation can have undesirable effects on reconstruction, such as implant loss.

Making these decisions and establishing a treatment plan are all very important and aided by a multidisciplinary approach, Matro noted.

"Women may be better served at an academic center where there is a breast team with breast surgeons, plastic surgeons, radiation oncologists, and medical oncologists, all with experience with inflammatory breast cancer," she said.

Clinical Trials

Finally, there is a definite lack of representation of women with inflammatory breast cancer in clinical trials, Moore said.

These women are almost always excluded from typical adjuvant treatment trials because almost all of them will require upfront therapy. Some women may qualify for trials of neoadjuvant therapy, but can be excluded because of the aggressive nature of the disease.

Some clinical trials will include only those women who present with inflammatory breast cancer, Matro said. For example, the University of Pennsylvania is currently enrolling for [a trial just for women with triple-negative inflammatory breast cancer](#).

"While the biology of this cancer is very aggressive, with modern chemotherapy and HER2-directed therapies, we certainly have a lot of patients that do very well, survive this disease, and go on to live without recurrence," Moore said.

However, she added, more trials and more participation will be essential in finding the most effective treatment options for women with inflammatory breast cancer.

Disclosures

Matro and Moore had no conflicts of interest.