Breast Conserving Surgery in Locally Advanced Breast Cancer

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Although mastectomy was the standard for care for patients who had locally advanced breast cancer in the past, in most major medical centers, patients who have demonstrated an adequate response to preoperative chemotherapy and who desire breast conservation are now considered candidates for breast conserving therapy. There are some special challenges pertaining to therapy to locally advanced breast cancer, including the selection of patients, assessment of local tumor involvement, and determination of radiation therapy volume. The critical determining factor for success is multidisciplinary management of the patient. Pre-chemotherapy planning is essential, and should include a complete workup at the presentation, with mammography of both breasts, and biopsy of any additional areas of concern prior to initiation of chemotherapy. Documentation of multicentricity up front would make a patient ineligible for breast conservation. Sampling of any grossly involved nodes on ultrasonography can also help in regional therapy decision making. In patients with small tumors, or rapidly responding tumors, localization of the tumor with a marker is also essential to allow the surgeon to identify the site of the tumor for excision at the completion of chemotherapy.

At the completion of chemotherapy, the imaging study that shows the most extensive disease is utilized for surgical planning. Surgical therapy is directed at the tumor nidus, targeting intraoperatively widely negative margins. In patients who have a complete clinical response, excision of the original tumor site is recommended to confirm a pathological complete response. Margin assessment, both intraoperatively and on permanent pathologic analysis is critical, in order to minimize local recurrence rate. Although initially there were concerns regarding use of breast conservation after preoperative chemotherapy, it is now clear that in carefully selected patients, breast conservation can be successfully performed with acceptable local control.