



ASO Author Reflections: How COVID-19 Impacted Breast Cancer Presentation and Management

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PAST

Prior to the COVID-19 pandemic, the primary therapy for operable breast cancer was surgical resection first, followed by adjuvant chemotherapy, radiation therapy and endocrine therapy as indicated. Use of neoadjuvant chemotherapy was increasing particularly in patients with HER2 positive breast cancer and those with triple negative breast cancer¹. Use of neoadjuvant endocrine therapy for hormone receptor (HR) positive tumors which had been shown to decrease tumor size and increase breast conservation rates² was frequently used in the UK, but not widely adopted in the US.

PRESENT

During the COVID-19 pandemic, temporary suspension of breast cancer screening programs, closures of operating rooms to elective procedures, and the need to triage patients according to medical acuity delayed treatment for some breast cancer patients and forced clinician to adjust their management strategies and look toward other therapeutic options^{3,4}. While operating rooms were closed, patients with early-stage hormone receptor positive disease were being started on neoadjuvant endocrine therapy (NET) to act as a bridge to surgery⁴.

Comparing the patients treated at our institution pre-COVID pandemic to those during the first 6 months of the COVID-19 pandemic (March 2020–August 2020) we

found that, despite potential delays in diagnosis due to suspension of breast cancer screening programs at the beginning of the pandemic, stage at diagnosis, method of cancer detection, and tumor biology did not differ between prior to and during the COVID-19 pandemic. We did, however, see a non-significant shift with increased stage II–IV disease at presentation during-COVID-19. Longer follow up may be needed to see the impact that lack of screening and resultant delays in diagnosis have on stage migration in breast cancer stage at presentation⁵.

Professional societies recommended the use of neoadjuvant therapy whenever possible as a means of delaying surgical intervention during the pandemic^{4,6}. In a survey of 114 surgeons, medical and radiation oncologists across the US about practice trends at the height of the pandemic, more physicians (53%) preferred NET for HR positive breast cancer until surgery could proceed compared to pre-pandemic times when 46% used NET ‘rarely’ and 33% use NET ‘sometimes’⁷. We similarly saw an increase in use of neoadjuvant therapy overall, which was due to a significantly increased utilization of NET (32% vs 10% pre-COVID-19). Specifically, we saw a significant increased use of NET in patients with clinical stage I HR+/HER2-disease (22% vs 7% pre-COVID-19) and non-significant increases in patients with clinical stage II and III HR+/HER2- disease⁵. A logical follow up question is whether surgical management also changed. In the aforementioned survey, with longer duration of NET, physicians favored ALND for low volume axillary disease.⁷ At our institution we saw no significant difference in type of breast or axillary surgery between periods, though there was a non-significant increased use of breast conserving surgery in cT1 and cT2 patients receiving NET during-COVID-19⁵.

FUTURE

Additional studies with longer follow up will help assess the impact that increased use of NET and delays in surgical management during the COVID-19 pandemic have had on patient management, surgical treatment, and cancer outcomes. Special attention should be paid to stage I patients receiving NET as they had not traditionally been managed in this way prior to the COVID-19 pandemic. Additional studies should also focus on the long-term impact delays in screening have on stage migration, surgical management, and cancer outcomes given the potential interruptions in multidisciplinary breast cancer care that could result from recurrent surges of COVID-19 or a different coronavirus in the future.

As new coronavirus variants emerge and recurrent surges in COVID hospitalizations continue to impact clinical care, this alternative management strategy of relying on neoadjuvant endocrine therapy to act as a bridge to surgery may continue to be intermittently necessary and is a viable option without negative impact on surgical management. It is likely that even in the absence of further pandemics, neoadjuvant endocrine therapy for HR positive, HER2 negative breast cancer will likely be more commonly utilized, as the multidisciplinary breast teams have become more comfortable with neoadjuvant endocrine therapy.

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