Received: 10 May 2020 | Revised: 13 May 2020 | Accepted: 15 May 2020

DOI: 10.1111/tbj.13925

COMMENTARY

The Breast Journal WILEY

Management of breast cancer during COVID-19 pandemic in Morocco

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Despite the extent of the COVID-19 pandemic worldwide, little changes have been made in our clinical practice in the management of breast cancer (BC). The aims of medical care are to ensure adequate treatment and avoiding any potential loss of chance concerning outcomes, to minimize the risk of COVID-19 transmission, and to protect cancer patients from the risk of serious or lethal coronavirus infection. Breast cancer patients are generally at low risk to develop immunosuppression during treatments. However, elderly patient populations are particularly at risk of contamination and developing severe COVID-19 disease, because of their ages and comorbidities.[1]

General recommendations have been implemented to protect patients in cancer units: postpone BC screening; limit unnecessary hospitalizations; prioritize teleconsultations for follow-up; postpone surgery for in-situ carcinoma (CIS) and low-grade cancers; favor 3-weekly chemotherapy regimens; use of granulocyte-colony-stimulating factors (GCSF) to prevent severe neutropenia; delay adjuvant radiotherapy (RT) for low-risk disease; favor hypo-fractionated RT; in metastatic stages of the disease, favor oral therapies.

Diagnosis of BC should be done by micro-biopsy for ACR4/5 lesions. However, for ACR3 lesions, diagnosis procedures should not be considered. If diagnosis of invasive carcinoma is made, staging work-up and management should be discussed in multidisciplinary team meeting. Consider staging assessment only for N-positive disease, or locally advanced stages. Radiologic work-up should include chest and abdomino-pelvic CT scan plus bone scan or PET-CT scan. Postpone reconstructive surgery until crisis resolves, and postpone surgery by 3 months, for low-grade CIS, and by 6 weeks for high-grade CIS. It is recommended to postpone surgery for women with invasive BC at high risk of developing severe forms of COVID-19 infection.[2]

For nonmetastatic BC, little changes have been reported in the management of our patients. For luminal A disease (well differentiated, low grade, hormone receptor-positive, and low KI67), consider primary hormone therapy to delay surgery. For luminal B disease, discuss the management on a case-by-case basis depending on age and comorbidities. Favor three weekly regimens: docetaxel at a dose of 75 mg/m^2 in combination with cyclophosphamide or docetaxel monotherapy every 3 weeks at a dose of 100 mg/m^2. GCSF should be considered in all patients. Consider surgery first for stage T1N0 triple-negative BC (TNBC) or human epidermal growth factor receptor-2 (HER2)-positive BC, to delay CT. Neoadjuvant CT is the treatment of choice for stage T2/and or N + TNBC and HER2 + BC. Pertuzumab/Trastuzumab/Docetaxel (for 6 cycles) is the preferred regimen for HER2 + disease. For TNBC, consider sequential CT with doxorubicine (or epirubicine)/cyclophosphamide for 4 cycles and Docetaxel for 4 cycles, administered every 3 weeks plus GCSF. In the case of residual disease, consider adjuvant TDM1 (trastuzumab emtansine) for HER2-positive BC and adjuvant capecitabine for TNBC.[2,3]

Recommendations for adjuvant radiotherapy remain the same for stages T3 or N-positive and for stages T1/T2N0 with risk factors (LVI, high grade, positive margins, and negative hormone receptor). For CIS, postpone adjuvant RT by 3-6 months and consider starting endocrine therapy. And if coronavirus pandemic is persistent, consider hypo-fractioned regimens. RT can be omitted in certain non-invasive carcinomas with good prognosis factors (Age > 40 years, tumors < 2.5 cm, low and intermediate grade, and sufficient surgical margins ≥ 2 mm). RT can be avoided for patients > 65 years (or with comorbidities) with invasive BC with good prognostic factors (grade 1-2, hormone-positive, tumors < 3 cm, N-negative, HER2-negative). For postmenopausal patients > 65 years with stage I or II and hormone-dependent disease, or patients with significant comorbidities, consider postponing RT by 3 to 6 months and start hormone therapy without delay. For other cases, treatment should be carried out according to the usual recommendations. Hypo-fractioned RT using a fractionation scheme of 42-Gy in 15 fractions should be preferred.

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TABLE 1 Treatment recommendations by priority

Priority	Chemotherapy	Radiotherapy
High priority	Adjuvant (Neoadjuvant) chemotherapy for high-risk BC (HER2-positive and TNBC); palliative chemotherapy for HER2-positive and TNBC	Adjuvant RT for high-risk BC RT for emergencies (spinal cord compression, symptomatic brain metastases)
Medium priority	Adjuvant CT for low-risk BC (luminal B), palliative chemotherapy for metastatic hormone receptor-positive BC.	Adjuvant RT for low-risk T1/T2N0 BC
Low priority	Second-line chemotherapy	RT for palliation RT for carcinoma in situ (CIS)

The ultrahypo-fractionated scheme, delivering a dose of 28/30-Gy in once weekly fractions over 5 weeks or 26-Gy in 5 daily fractions over 1 week as per the FAST and FAST Forward trials, should be considered and discussed on a case-by-case basis (patients requiring RT with N-negative tumors that do not require a boost). Radiation boost on the tumor bed does not provide any benefit in OS and can be omitted for patients > 40 years without risk factors (LVI, high grade, hormone-negative and positive surgical margins).[3,4]

For metastatic BC, prioritizes oral treatments. For patient with hormone-sensitive disease without evidence of visceral crisis, consider treatment with CDK4/6 inhibitors and aromatase inhibitor. Avoid the use CDK4/6 inhibitors in older and frail women with respiratory comorbidity, because of high risk of lymphopenia, and thereafter high risk of developing severe forms of COVID-19 infection. In second-line setting, consider second-line hormone therapy for hormone-sensitive disease and avoid the use of Everolimus because of high risk of pulmonary adverse events. For HER2-positive BC, prefer first-line treatment with Pertuzumab/Trastuzumab/Docetaxel regimen for 6 cycles plus GCSF. For patients with complete response, postpone maintenance with Pertuzumab/Trastuzumab until crisis resolves. In second-line setting, favor TDM1 for women without pulmonary comorbidities. For TNBC patients already pretreated with anthracyclines and taxanes, favor oral CT with capecitabine or metronomic cyclophosphamide (beware about the risk of lymphopenia with cyclophosphamide). Consider palliative RT using hypofractionated regimens if symptoms of metastatic disease are not controlled with usual medical treatments.[3,5]

Table 1 showed breast cancer treatment recommendations by priority.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

ETHICAL APPROVAL

None.

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