EARLY BREAST CANCER, HER2-POSITIVE

CLINICAL CASE PRESENTATION

Simona Volovat
Breast Unit - Champalimaud Clinical Centre, Lisbon, Portugal
Institute of Regional Oncology, Iaşi, Romania
DISCLOSURES

Honoraria: Pfizer, Amgen, Sandoz
CLINICAL CASE

32 years-old female

• **Past Medical History**
  No relevant past medical or surgical history
  Standard medication: n/a

• **Gynecologic/Obstetric History**
  Premenopausal, age at menarche: 12, no history of oral contraceptives
  2 births, no abortions, breastfeeding (8 and 5 months)

• **Family History**
  No family history of breast/ovarian cancer
Sept 2017: felt a lump in the left breast and increased left axillary lymph nodes

Breast US/MRI: suspicious 3 cm nodule in the left breast, BI-RADS 4 and three suspicious axillary lymph nodes of 15-18mm

Breast biopsy: invasive ductal carcinoma
Grade 3, ER and PR < 1%, HER2 positive (3+), Ki67 = 45%

Axillary lymph node biopsy: positive for carcinoma

Bi-RADS, Breast Imaging Reporting and Data System; ER, oestrogen receptor; HER2, human epidermal growth factor receptor 2; PR, progesterone receptor
Q1: Would you perform systemic staging in this patient?

1. Yes, with CT scans, bone scan and blood tests
2. Yes, with PET-CT and blood tests
3. Yes, but only if clinical symptoms or signs
4. No

CT, computed tomography; PET-CT, positron electron tomography-computed tomography
CLINICAL CASE

October 2017 – systemic staging (PET-CT) was negative

**Diagnosis:** Left breast cancer, cT2N1M0 Stage IIB – HER2 positive, ER/PR negative

ER, oestrogen receptor; HER2, human epidermal growth factor receptor 2; PET-CT, positron electron tomography-computed tomography; PR, progesterone receptor
Q2: Would you recommend genetic testing in this patient?

1. Yes
2. No
Patient was referred for genetic counseling

She has a 14% risk of BRCA mutation according to the Penn II risk model

BRCA testing was recommended but was not done until now (not covered by health insurance)
Q3: Would you consider fertility preservation for this patient?

1. No
2. Yes, temporary ovarian suppression with LHRH agonists during chemotherapy
3. Yes, embryo/oocyte cryopreservation
4. Yes, cryopreservation of ovarian tissue

LHRH, luteinizing hormone-releasing hormone
After discussing with the patient, she decided that fertility preservation was not an important issue as she already has two children and is not planning another future pregnancy.

No fertility preservation method was used.
Q4: Would you consider neo-adjuvant therapy for this patient?

1. Yes
2. No
Q5: If yes, what type of regimen would you choose?

1. Anthracycline/taxane-based (3/3 weeks) plus trastuzumab
2. Anthracycline/taxane-based (3/3 weeks) plus trastuzumab plus pertuzumab
3. Dose dense anthracycline/taxane
4. Dose dense anthracycline/taxane-based plus trastuzumab plus pertuzumab
5. TCH
6. TC

TC, docetaxel/cyclophosphamide; TCH docetaxel/carboplatin/trastuzumab
The patient underwent neo-adjuvant chemotherapy

**Regimen:** EC – Docetaxel/trastuzumab/pertuzumab

Post-treatment breast and axilla ultrasound assessment:
- 5 mm suspicious nodule in the left breast
- no axillary lymph nodes detected
Q6: Which type of axillary surgery after primary systemic treatment would be indicated for this patient?

1. Sentinel lymph node biopsy (SLNB)
2. Axillary lymph node dissection (ALND)
3. Targeted axillary dissection
The patient underwent conservative surgery of the left breast and SLNB in March 2018.

**Pathology report:**
Invasive carcinoma 6mm, ypT1bN0(sn) R0, 3 negative lymph nodes.
Q7: Which systemic treatment would you further recommend for this patient?

1. Trastuzumab – 1 year
2. Trastuzumab/pertuzumab – 1 year
3. Adjuvant neratinib
4. Adjuvant capecitabine
The patient underwent adjuvant RT

She is currently undergoing adjuvant treatment with trastuzumab (1 year)