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ESMO Preceptorship Programme

Breast Cancer - Lisbon, Portugal - November 9-10, 2018

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A Case of *De Novo* Metastatic Breast Cancer With Equivocal HER-2 Status

Disclosures

No conflicts of interest to disclose

Part 1: Clinical Presentation and Diagnosis

Patient	36 yo woman, no comorbidities No family history of breast or other cancer
Presentation	Persistent lumbar pain Detection of lump in the left breast at self-examination
Breast Exam	Clinical exam: Lesion of 25 mm in the left upper-intern quadrant Breast Ultrasound + Mammography: confirmed lesion of 32 mm
Work-up	Whole body PET-scan and Vertebral Column MRI: Multiple supra-clavicular, axillary, and mediastinal lymph nodes; Bone metastases in C6, L3, sternum
US-guided Breast Biopsy	Invasive Ductal Carcinoma Estrogen Receptor + (90%) Progesteron Receptor + (50%) HER-2 IHC score 2+, FISH equivocal
Genetic Testing	No mutations linked to hereditary breast cancer (BRCA1, BRCA2)

FISH Equivocal

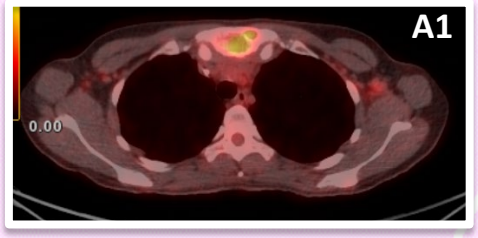
HER2 copy number/cell= 4.97
HER2/CEP17 ratio= 1.55

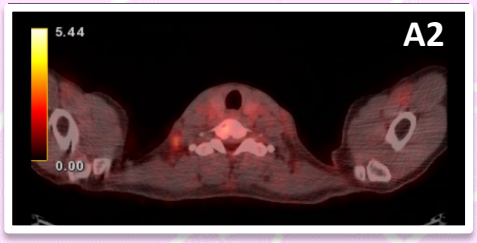
Part 2: Choice of First Line treatment and Follow-up

First Line

Taxol 80 mg/m² weekly
Trastuzumab 8/6 mg/Kg 3-weekly
Pertuzumab 840/420 mg 3-weekly
for 6 cycles
*+ Denosumab**

PET-scan (after 6 cycles): Partial Response (A1, A2)
(shrinkage of breast nodule and of nodal mets)

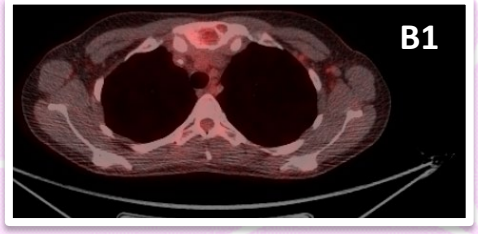


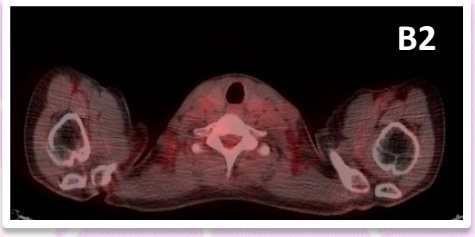


Maintenance

Trastuzumab 3-weekly
Pertuzumab 3-weekly
Tamoxifen 20 mg daily
for 3 cycles

PET-scan (after 3 cycles): confirmed Partial Response (B1, B2)





Breast Local Treatment

Radical Left Mastectomy
(strongly pursued by patient)

Pathology Report: Invasive ductal carcinoma
ø 4 mm with substantial fibrosis,
almost Pathologic Complete Response
ypT1a ypNx

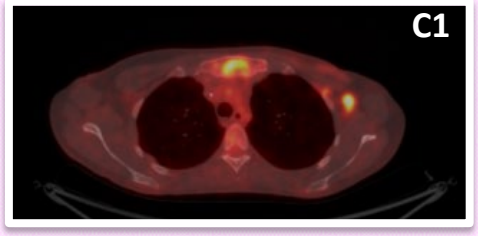
**Patient was continuously kept on Denosumab*

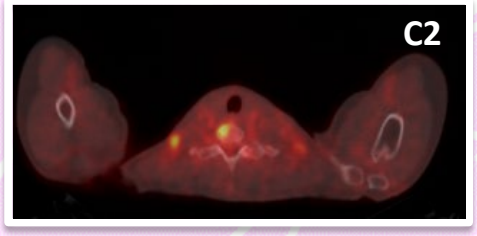
Part 3: Treatment upon Progression

Maintenance

Trastuzumab 3-weekly
Pertuzumab 3-weekly
Tamoxifen 20 mg daily
for 3 cycles

PET-scan (after 3 cycles): Progressive Disease (C1, C2)
bone and lymph nodes progression (palpable)





Re-biopsy of palpable metastatic left axillary lymph nodes

Pathology Report:
Adenocarcinoma
Estrogen Receptor + (100%)
Progesteron Receptor + (90%)
HER-2 IHC score 2+; FISH -

FISH Negative

HER2 copy number/cell= 2.79
HER2/CEP17 ratio= 1.37

Second line

Eribuline 1.23 mg/m^2 (d1-8) 3 weekly
for 6 cycles

PET-scan (after 3 and 6 cycles): Partial Response
But discontinued for neurotoxicity

Ongoing therapy (for 5 months)*

Ovarian Suppression (Oophorectomy)
Letrozole 2.5 mg daily
Palbociclib 125 mg 3 wks on/1 wk off

Re-staging PET-scan: partial response
Overall patient is doing well

**Patient was continuously kept on Denosumab*

A Case of *De Novo* Metastatic Breast Cancer With Equivocal HER-2 Status: Key-Points for Discussion

Part 1: Clinical Presentation and Diagnosis	• When should we be content with an equivocal HER-2 result? • When should we pursue re-biopsy before initiating any treatment?
Part 2: Choice of First Line Treatment and Follow-up	• Which first-line treatment for HER-2 equivocal tumors? [Cleopatra vs. Paloma] • What is the best endocrine maintenance treatment? [Tam vs. AI] • Any role for breast local treatment? [Mastectomy vs. BCS] Best candidates? Best timing? Which objectives?
Part 3: Treatment upon Progression	• Re-biopsy of accessible metastatic disease? • Which treatment upon progression? • Chemo vs. Endocrine backbone? Type of agent?

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Thank you for your attention