#### **ESMO** Clinical Practice Guidelines

### Breast Cancer Clinical Case Presentation

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#### Disclosures

Consultant:

Astellas/Medivation, AstraZeneca, Celgene, Daiichi-Sankyo, Eisai, GE Oncology, Genentech, GlaxoSmithKline (GSK) Merck-Sharp, Merus BV, Novartis, Pfizer, Pierre-Fabre Roche, Sanofi, Teva



- CS, a 39-year-old lady came to our Breast Unit on June 2012, with a recent diagnosis of breast cancer relapse.
- In Nov 2009, she had been diagnosed with T2N1M0 left ductal invasive breast cancer, grade 3, ER and PR negative, HER-2+.
- She was treated with breast conserving surgery and axillary dissection. Pathology: ductal invasive carcinoma, 23 mm, 4+LN, ER/PR neg and HER-2+.
- She was treated with 6 cycles of TAC, trastuzumab for 1 year (end: May 2011) and adjuvant RT. BRCA 1 & 2 negative.
- In May 2012, she noticed a left supraclavicular lump. Work-up was performed with US and a biopsy that confirmed a lymph node metastasis of a ER/PR neg and HER-2+ BC.
- She had no other symptoms and tumour markers were normal. A PET-CT was performed and confirmed as only site of metastases supraclavicular LNs.



#### Q1: Do you regularly biopsy metastatic disease?

- 1. Yes
- 2. No
- 3. Only when receptors are negative in the primary tumour
- 4. Abstain





#### **BIOPSY OF METASTATIC LESION**

A biopsy (preferably providing histology) of a metastatic lesion should be performed, if easily accessible, to confirm diagnosis particularly when metastasis is diagnosed for the first time. (LoE: 1 B) (98%)

**Biological markers** (especially HR and HER-2) should be reassessed at least once in the metastatic setting, if clinically feasible. (LoE: 1 B) (98%)

Depending on the metastatic site (e.g. bone tissue), technical considerations need to be discussed with the pathologist.

### Q2: Do you regularly use PET-CT in the initial work-up of metastatic breast cancer?

- 1. Always
- 2. No
- 3. Only to confirm oligo-metastatic disease
- 4. In selected cases
- 5. Abstain





IMAGING, TUMOR MARKERS & EVALUATION OF RESPONSE

Minimal staging workup for MBC includes a history and physical examination, hematology and biochemistry tests, and imaging of chest, abdomen and bone (LoE: 2 C). (67%)

Notes:

 ✓ Biochemistry tests including liver function tests, renal function, electrolytes, calcium, total proteins and albumin
✓ In many cases a chest X-ray, an abdominal ultrasound and a bone scan are sufficient (lot of discussion about the optimal imaging modality- LoE 2C)

✓ Consensus that a PET-scan should NOT be part of the minimal staging workup but should be reserved for specific situations

Q3: Which of the following would be your preferred option for 1<sup>st</sup> line therapy outside a clinical trial? (please note that Pertuzumab was not yet available at that time)

- 1. Trastuzumab + Vinorelbine
- 2. Trastuzumab + Capecitabine
- 3. Trastuzumab + Taxane
- 4. Lapatinib + Capecitabine
- 5. T-DM1
- 6. CT alone



Q4: What if pertuzumab was available? Would you choose for this particular patient Docetaxel + Trastuzumab + Pertuzumab?

- 1. Yes
- 2. No
- 3. Abstain



- The patient was started on Trastuzumab + Vinorelbine in July 2012.
- PET-CT performed after 3 cycles showed a good PR and continued response after 6 cycles (only 1 small LN remained). Some hematological toxicity.
- Vinorelbine was stopped (Nov 2012) and trastuzumab monotherapy continued.
- In Feb 2013, PD with cutaneous lesions in the left breast. PET-CT showed 1 mediastinal LN. No other lesions. Tumour markers always normal.
- A cutaneous biopsy confirmed infiltration by ductal invasive carcinoma ER/PR negative and HER-2 positive.



# Q5: Which of the following would be your preferred option for 2<sup>nd</sup> line therapy outside a clinical trial?

- 1. Trastuzumab + Capecitabine
- 2. Trastuzumab + Taxane
- 3. Lapatinib + Capecitabine
- 4. Docetaxel + Trastuzumab + Pertuzumab
- 5. T-DM1
- 6. Trastuzumab + Lapatinib
- 7. CT alone



- The patient was started on Trastuzumab + Capecitabine in Feb 2013.
- Evaluated clinically and with photographs, showing a good response.
- PET-CT performed after 7 cycles: still 1 small mediastinal LN and FGD captation in left breast; no other lesions.
- Trastuzumab + Capecitabine was maintained.
- Re-irradiation was performed to left breast + left supraclavicular (capecitabine stopped during RT and then continued).
- Good response (almost CR).
- After 15 cycles, reappearance of cutaneous lesions. Biopsy confirmed malignancy with the same biology.
  - PET-CT did not show any lesion.



# Q6: Which of the following would be your preferred treatment option outside a clinical trial?

- 1. Trastuzumab + Taxane
- 2. Trastuzumab + liposomal anthracycline
- 3. Docetaxel + Trastuzumab + Pertuzumab
- 4. T-DM1
- 5. Trastuzumab + Lapatinib
- 6. CT alone



- The patient was started on Trastuzumab + Lapatinib in Jan 2014.
- Evaluated clinically and with photographs, showing good response.
- In August 2014, cutaneous PD and in left breast, confirmed by mammography/US.
- Proposed to the patient T-DM1 or Trastuzumab + metronomic CM. She decided for the latter.
- In the meantime, a MRI of the left braquial plexum was requested since the patient had developed important neurological pain in the left arm, after RT.
- It showed post-RT fibrosis but also 1 brain metastasis in the cerebellum, with 30 mm. The patient was asymptomatic and a neurologic exam was normal. The brain metastasis was confirmed to be a solitary one with a brain MRI.
- The patient had just started the metronomic CT, and trastuzumab continued.



# Q7: Which of the following would be your preferred local treatment option for solitary brain metastasis?

- 1. Surgery alone
- 2. Radiosurgery alone
- 3. Surgery followed by radiosurgery
- 4. Whole brain radiotherapy
- 5. Surgery followed by whole brain radiotherapy
- 6. Other



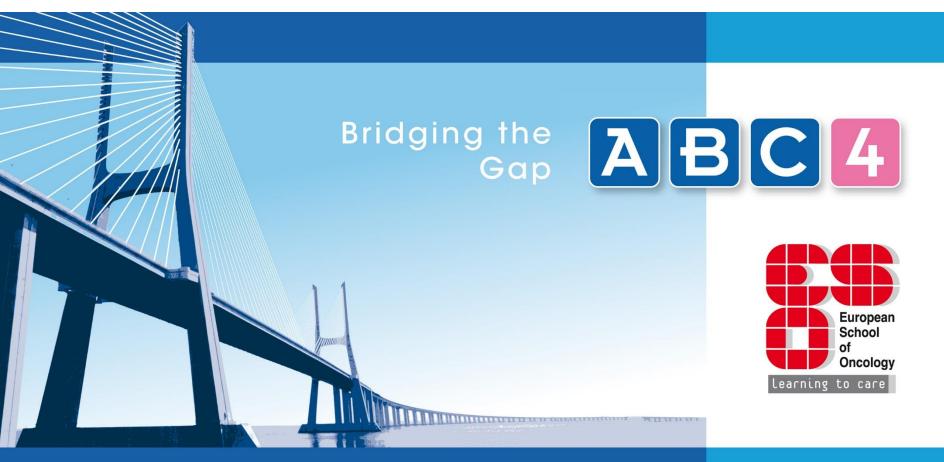
### Q8: And regarding systemic therapy, which of the following would be your preferred choice?

- 1. Keep the same ongoing systemic therapy
- 2. Change to i.v. chemotherapy + trastuzumab
- 3. T-DM1
- 4. Taxane + trastuzumab + pertuzumab
- 5. Stop chemotherapy and continue trastuzumab alone



- Brain surgery followed by radiosurgery to the lesion bed, without complications in September 2014.
- Pathology of brain metastasis: ductal invasive carcinoma, ER/PR negative HER-2 positive.
- Systemic therapy was maintained without change (metronomic CM + trastuzumab).
- 2 months later, progression of lesion in the breast and cutaneous lesions. No surgical indication. No new metastatic sites.
- Decided to start T-DM1. She received 6 cycles with the best response as SD, followed by PD of cutaneous lesions.
- She was started on wPaclitaxel + Trastuzumab + Pertuzumab in April 2015. After 4 cycles, paclitaxel was stopped and the 2 antibodies continued, with good PR. She is still on treatment.





#### Advanced Breast Cancer

November 2017 • Lisbon, Portugal

Fourth International Consensus Conference

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