Metastatic breast cancer: sequence of therapies
Clinical Case Presentation

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DISCLOSURES

no conflicts of interest to declare
Initial diagnosis

Dec 2005:
A healthy 47-year-old woman presented with a left breast lump found at clinical examination

Jan 2006:
Quadrantectomy and sentinel lymph node biopsy.
Initial stage: pT1cN0M0
Immunohistochemistry: invasive ductal carcinoma ER 90%, PR 70%, ki67 20% and HER2 negative

Feb 2006:
Whole breast irradiation

Feb 2006-Feb 2011:
Adjuvant tamoxifen

ER, oestrogen receptor; PR, progesterone receptor
First recurrence - Diagnosis

Jan 2016:
This lady presents with a new palpable left supraclavicular adenopathy
Q1: Would you perform a biopsy before starting treatment?

1. Yes

2. No

(one answer)
First recurrence - Biopsy

Jan 2016:
She undergoes a supraclavicular lymph node biopsy, which reveals metastatic adenocarcinoma consistent with breast primary, ER 95%, PR 60%, HER2-
First recurrence - Staging

Feb 2016:
Bone scan: uptake in multiple ribs bilaterally, as well as throughout her cervical, thoracic, and lumbar spine and the pelvis

Feb 2016:
CT scan of the chest, abdomen, and pelvis: bone metastases, abnormal bilateral axillary, supraclavicular, and internal mammary lymph nodes, and two subcentimetric liver metastases
Clinical features

PS ECOG 0

58-year-old woman

Bone, liver and lymph node metastases

Asymptomatic

No comorbidity

ECOG, Eastern Cooperative Oncology Group; PS, performance status
Q2: Which treatment strategy would you choose as first-line therapy?

1. Endocrine therapy alone

2. Endocrine therapy plus biologic agents

3. Chemotherapy

(one answer)
Q3: Which first-line therapy would you choose? (no prior ET with AI)

1. AI
2. Fulvestrant
3. AI + CDK 4/6 inhibitor
4. Monochemotherapy
5. Polychemotherapy

(one answer)
### Guideline Statement

Endocrine therapy (ET) is the preferred option for hormone receptor positive disease, even in the presence of visceral disease, unless there is visceral crisis or concern/proof of endocrine resistance.

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**Voters:** 41  
**Yes:** 93% (38)  
**Abstain:** 7% (3)
No prior AI
(endocrine naïve or prior tamoxifen)

**FIRST**
MBC ER+HER2-
Postmenopausal
1st line; >1 year from end of adj. AI

- Anastrozole 1 mg
- Fulvestrant 500 mg

**FALCON**
MBC ER+HER2-
Postmenopausal
1st line; >1 year from end of adj. AI

- Fulvestrant 500 mg + placebo
- Anastrozole 1 mg + placebo

**PALOMA-2**
MBC ER+HER2-
Postmenopausal
1st line; >1 year from end of adj. AI

- Palbociclib 125mg+ letrozole 2.5 mg
- Placebo + Letrozole 2.5 mg

**MONALEESA-2**
MBC ER+HER2-
Postmenopausal
1st line; >1 year from end of adj. AI

- Ribociclib 600 mg + Letrozole 2.5 mg
- Placebo + Letrozole 2.5 mg

Progression after first line
Which second-line treatment?

Feb 2016:
Patient started letrozole

July 2017:
17 months later, a new restaging CT scan shows modest liver and bone progressive disease (lymph nodes maintain response)

The patient is still asymptomatic

ECOG 0

CT, computed tomography; ECOG, Eastern Cooperative Oncology Group
Q4: Which second-line therapy would you choose? (PD ≥ 6 months after first-line ET)

1. Fulvestrant
2. Fulvestrant + CDK 4/6 inhibitor
3. Exemestane + everolimus
4. Monochemotherapy
5. Polychemotherapy

(one answer)
Advanced breast cancer

1st Line endocrine therapy

2nd Line endocrine therapy

3rd Line endocrine therapy

Chemotherapy

LTD, life-threatening disease
Second-line therapy
(PD ≥ 6 months after first line ET)

**PALOMA-3**
- MBC HR+HER2- Postmenopausal Disease Progression after NSAI
- Palbociclib + fulvestrant
- Placebo + fulvestrant

**MONARCH2**
- MBC HR+HER2- Postmenopausal Disease Progression after NSAI
- Fulvestrant + abemaciclib
- Fulvestrant + placebo

**CONFIRM**
- MBC HR+HER2- Postmenopausal Disease Progression after NSAI
- Fulvestrant 500 mg
- Fulvestrant 250 mg + Placebo 250 mg

**BOLERO 2**
- MBC HR+HER2- Postmenopausal Disease Progression after NSAI
- Everolimus 10 mg + Exemestane 25 mg
- Placebo + Exemestane 25 mg

Second-line therapy
(PD ≥ 6 months after first-line ET)

August 2017:
Patient started fulvestrant-palbociclib
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