Metastatic Breast Cancer (MBC) in 2019

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- **Consulting/Advisory board:** Tmunity
What does “metastatic” mean?

- Metastatic breast cancer (MBC) is breast cancer that has spread outside of the breast, to another location like the bone, lung, liver, etc.

- Breast cancer that has spread to a different location is still considered breast cancer (for example, breast cancer in the lung is different from lung cancer)

- Generally, we cannot cure cancer once it is metastatic, but we can treat it, often for years (analogous to diabetes or high blood pressure)

- Stage IV breast cancer = metastatic
Our approach to caring for pts with MBC

- Cancer-directed treatment
- Emotional support
- Symptom control
Our approach to caring for pts with MBC

- Finding treatments that allow you to live as well as possible for as long as possible
- Monitoring
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Cancer-directed treatment

Emotional support

Symptom control

Helping with:
- Fear
- Anxiety
- Worry about family members
- Loss of control, wondering what else you can do
- Support for caregivers
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Treating pain and other symptoms you might have with medications, integrative medicine support
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Treating pain and other symptoms you might have with medications, integrative medicine support

- We need to understand your thoughts, concerns and needs
- We partner closely with palliative care
How do we classify MBC? 5 years ago...

- Any breast cancer – look at 3 things under the microscope: ER, PR, HER2

  - 60-70%
  - 15-20%

- ER/PR positive
- HER2 positive
- TNBC

- These features tell us about what treatments are and are not likely to work
- These features are still important, but now we also consider additional factors
How do we classify MBC? 2019…

- Any breast cancer – look at 3 things under the microscope: ER, PR, HER2

Also:
- PDL-1
- BRCA1/2
- PIK3CA

- These features tell us about what treatments are and are not likely to work
MBC treatment 5 years ago

- If cancer is hormone-driven, anti-estrogen therapy

- If anti-estrogen therapy was felt to be insufficient, ineffective, or if cancer is not hormone-driven, chemotherapy

- If cancer is HER2-driven, trastuzumab / pertuzumab-based treatment

- Few targeted therapies (everolimus)

- No immunotherapy approvals

- Clinical trials are always important to consider
MBC treatments available 5 years ago

HER2-targeted tx

everolimus

Anti-estrogen therapy
MBC treatments available in 2019

- palbociclib
- abemaciclib
- ribociclib
- alpelisib
- HER2-targeted tx
- everolimus
- olaparib
- talazoparib
- Pembrolizumab
- Atezolizumab
- Anti-estrogen therapy
- Everolimus
What are some of the new treatments for MBC?

- **Hormone receptor positive (HR+) MBC**
  - CDK4/6 inhibitors: palbociclib (Ibrance), ribociclib (Kisqali), abemaciclib (Verzenio)
  - PI3K inhibitor: alpelisib (Piqray)

- **Triple-negative (TN) MBC**
  - Immunotherapy: atezolizumab (Tecentriq)

- **MBC with a BRCA mutation**
  - PARP inhibitors: olaparib (Lynparza), talazoparib (Talzenna)

- **Clinical trials are always important to consider**
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These drugs work by stopping cancer cells from making more of themselves.
Drug 1: CDK4/6 inhibitors

- Patients with HR+ MBC
  - Anti-estrogen medicine
    - Placebo
    - CDK4/6 inhibitor
Drug 1: CDK4/6 inhibitors

Several trials showed us that adding a CDK4/6 inhibitor to anti-estrogen therapy works to treat HR+ MBC

- Combination was better
- Not a lot of side effects
- Our first choice for HR+ MBC
Drug 2: PI3K inhibitor: alpelisib (Piqray)

Patients with HR+ MBC that had a gene alteration in PIK3CA on tumor testing

Anti-estrogen medicine + Placebo
or
Anti-estrogen medicine + alpelisib
Drug 2: PI3K inhibitor: alpelisib (Piqray)

The “SOLAR-1” trial showed us that alpelisib works to treat HR+ MBC when the tumor has a mutated version of a gene called *PIK3CA*

- **patients with HR+ MBC that had a gene alteration in *PIK3CA* on tumor testing**

- **Anti-estrogen medicine**
  - + **Placebo**
  - or

- **Anti-estrogen medicine**
  - + **alpelisib**

- Combination was better
- But some side effects
- A good option, but not our first choice
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Immunotherapy “releases the brakes” on your immune system, so the immune system can fight the cancer.
Immunotherapy: atezolizumab (Tecentriq)

patients with triple-negative MBC

- Abraxane chemotherapy + Placebo
  - or
  - Abraxane chemotherapy + Atezolizumab immunotherapy
Immunotherapy: atezolizumab (Tecentriq)

This clinical trial showed us that immunotherapy works to treat triple-negative MBC when the tumor has a protein on it called PDL1.

- Combination was better
- Not a lot of side effects
- Our first choice for TN MBC
What are some of the new treatments for MBC?

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- **MBC with a BRCA mutation**
  - PARP inhibitors: olaparib (Lynparza), talazoparib (Talzenna)

These drugs work by killing cancer cells that have **BRCA1/2 mutations**
PARP inhibitors:

Patients with BRCA1/2+ MBC

Chemotherapy

or

PARP inhibitor (targeted therapy)
PARP inhibitors:

These clinical trials showed us that PARP inhibitors work to treat MBC when the patient has an inherited mutation in *BRCA1* or *BRCA2*

- PARP inhibitor was better
- Not a lot of side effects
- A great choice for *BRCA1/2+ MBC*
There are several new treatments for MBC

- **HR+ MBC**
  - CDK4/6 inhibitors:
    - palbociclib (Ibrance)
    - ribociclib (Kisqali)
    - abemaciclib (Verzenio)
  - PI3K inhibitor: alpelisib (Piqray)

  - FDA approved in:
    - 2015
    - 2017
    - 2017
    - May 2019

- **Triple-negative (TN) MBC**
  - Immunotherapy: atezolizumab (Tecentriq)

  - FDA approved for MBC March 2019

- **MBC with a BRCA mutation**
  - PARP inhibitors:
    - olaparib (Lynparza)
    - talazoparib (Talzenna)

  - FDA approved in:
    - January 2018
    - October 2018
MBC: the bottom line

- There is significant progress being made
We have gone from this

HER2-targeted tx
everolimus

Anti-estrogen therapy
To this

- palbociclib
- abemaciclib
- ribociclib
- alpelisib
- talazoparib
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- Anti-estrogen therapy
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- olaparib
- talazoparib
- pembrolizumab
- atezolizumab
- Anti-estrogen therapy

Because of patients like you!
MBC: the bottom line

- There is significant progress being made

- More on the horizon (targeted therapies for HER2+ MBC including margetuximab, tucatinib, DS-8201)

- Even more being investigated (CAR-T therapy, other targeted therapies)

- But a lot of work left to do
THANK YOU!

QUESTIONS?