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Patient Preferences for HR+/HER2- Metastatic Breast Cancer Treatments in Italy: A Qualitative Assessment

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Objective

- The objective of this study was to investigate factors that influence treatment preferences of patients with hormone receptor-positive/HER2-negative (HR+/HER2-) metastatic breast cancer (mBC) using discrete choice experiment (DCE) methodology. This qualitative pilot phase aimed to collect patients' perspectives and identify what is most important to them in terms of mBC treatment features in order to select appropriate attributes to be tested in the subsequent quantitative DCE phase.

Methods

- To generate hypotheses and inform variables, the pilot phase consisted of online telephone interviews lasting 45 min with patients with a diagnosis of Stage IV HR+/HER2- breast cancer at various stages of treatment.
- Participants were included if they were 18 years old and over, they self-reported a diagnosis of stage IV HER2- HR+ breast cancer and were currently receiving their first or second line of hormonal therapy or expecting to receive or currently receiving their first chemotherapy or having completed at least one line of chemotherapy for the treatment of their metastatic breast cancer.
- Interviews focused on exploring patients' perspectives on their interaction with physicians, preferences, and treatment experiences.

Conclusions

- This qualitative pilot study allowed for identification of seven treatment features that are most important from a patient's perspective when selecting a treatment for mBC, which will be further assessed in the DCE. It also highlighted the need of patients with HR+/HER2- mBC to receive information about their treatment, potential side-effects, and health management. This research suggests that there is a need for patients to be more involved in treatment plans, and that taking patient preferences into account may help improve the treatment selection experiences.

PARTICIPANTS' CHARACTERISTICS (n=15)

Age		**Stage at diagnosis**	
Mean	46 y.o.	Stage I-III	4
Range	29 to 64	Stage IV	11
Family situation		**Current treatments**	
Married/Partner/Fiancé	11	Chemotherapy	4
Single	4	Hormonal therapy	11
Has children	15	Targeted therapy	5
Employment status		**Experience with chemotherapy**	
Employed full time	7	Yes	9
Employed part time	2	No	6
Not employed	6		

Introduction

- Breast cancer is the most common form of cancer in Italy (Globocan 2020 (Cao, 2021)) with 55,133 new cases in 2020, accounting for 13.3% of all cancers.
- A recent population study showed that 6% of cancers are diagnosed in the metastatic phase (mBC) in Italy (Mangone et al. 2022).
- Building upon success in treatment development in metastatic breast cancer, several new therapies are in development for adoption into clinical practice. However, therapy selection is based on a number of clinical factors in addition to efficacy and should include patient preferences on therapy features.

Results and interpretation

Treatment plan decision

- Eight and four patients reported receiving little information about their treatment plan and their risk status beyond the risk of relapse, respectively.
- Most participants did not know what to expect from their therapy but expressed trust in their physician's decision in terms of treatment goals.
- Few patients (n=3) looked for a second opinion before starting treatment.
- Four out of fifteen patients declared that they were actively involved in their treatment plan decision, although all relied on their physician's knowledge and decision.

*"**I don't ask, because I understand that I can't ask. Even if you ask them, they don't know**, they can't answer me, I know there's no cure. As long as there are therapies, we try them, how long they last no one knows ... what questions should I ask?" PT_05*

*"I totally trusted my oncologist; **I had no other choice. They explained to me that by starting this therapy I could see improvements and therefore I trusted myself to them. He did not go into specifics**." PT_02*

GOALS AND CONCERNS

- Reduced symptoms and improved quality of life (QoL) were patients' main treatment goals, and side-effects and the fear of not receiving the most efficient treatment were their main concerns.
- When asked about the degree of acceptability of certain side effects, some participants considered hair loss (n=5) and vomiting (n=8) as unacceptable side effects, regardless of severity, while others considered them to be the most acceptable.
- This discrepancy is to be interpreted in the light of participants' own treatment journey. Severity and duration of side-effects were mentioned by three patients as acceptability factors.

"The duration is also important; how long the treatment should last. I would prefer it to be short but more effective. If I had to choose, there are two things: either with a higher risk but short or I could do longer, but it would have to have very few risks." PT_02

*"They gave me the hormone treatment and then, luckily, I didn't have to have chemotherapy. I hope it was the right treatment because the doubt is always there. **Why didn't I have chemotherapy?**" PT_10*

Table 1. Choice task

TREATMENT A	TREATMENT B
The cancer remains stable and does not worsen for an average of 13 months	The cancer remains stable and does not worsen for an average of 25 months
33% risk of fatigue (any severity)	37% risk of fatigue (any severity)
20% risk of diarrhea (any severity)	35% risk of diarrhea (any severity)
28% risk of nausea (any severity)	52% risk of nausea (any severity)
13% risk of vomiting (any severity)	29% risk of vomiting (any severity)
5% risk of alopecia (any severity)	33% risk of alopecia (any severity)
2% risk of low concentration in the blood of a type of white blood cell which normally help your body fight infections (any severity)	74% risk of low concentration in the blood of a type of white blood cell which normally help your body fight infections (any severity)
17% risk of a serious side effect requiring medical attention and possible hospitalization	81% risk of a serious side effect requiring medical attention and possible hospitalization
Monthly intramuscular injections	Daily oral pills

Preferences about treatment

- In a choice task (Table 1), patients were asked to express preferences between two hypothetical treatments and explain their reasoning.
- Efficacy and administration mode were spontaneously deemed important for treatment selection.
- When comparing the two hypothetical treatments, most patients (n=10) expressed their preference for treatment B because of the longer progression-free survival (PFS).

"A very important factor is the disease-free period, if they offer you a drug that on average gives you two years free from disease, it actually has a certain weight. Then, definitely the type of administration, i.e. whether oral or infusion." PT_06

"I prefer oral lozenges to intramuscular injections. Then you really feel like you're dying, in my opinion." PT_01

- Considering their substantial impact on QoL, alopecia (n=9) and vomiting (n=9) were presented by patients as particularly important, regardless of their degree of severity; whereas almost all patients reported that only severe forms of fatigue (n=12), diarrhea (n=13) or nausea (n=13) would be an issue.

"Vomiting is important, because if you vomit, you already feel weak, then vomiting is not easy." PT_07

"I would die if I lost my hair." PT_01

"[Diarrhea] certainly weighs on a person's quality of life. Clearly the more serious it is, the heavier it is." PT_02

"Fatigue, of course, if it is severe, becomes a big problem." PT_04

- Risk of infection and neutropenia (n=12) were concerns expressed by most patients in the post-COVID-19 period.

"For me neutropenia is a very important side effect if it is above grade 2. For me it involves a whole series of effects, from decreasing the concentration of the therapy or stopping it." PT_06

These results allowed selection of the following attributes for further quantification of their preference weights in a DCE: PFS, risk of neutropenia, risk of alopecia, risk of vomiting, risk of diarrhea, risk of grade 3/4 side effects and mode of administration.

Disclosures

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