ASSESSMENT OF PERTUZUMAB USE FOR HER2-POSITIVE BREAST CANCER TREATMENT

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PURPOSE

• To describe pertuzumab utilization as Her2-positive breast cancer (BC) treatment at an oncology reference hospital.
• To analyze treatment associated costs according to its different indications.

MATERIAL AND METHODS

• We designed an observational and retrospective study of drug utilization.
• All Her2-positive BC patients treated with pertuzumab from its EMA authorization until August 2017 were included.
• Data collected from patient medical history records were age, cancer stage, lines of treatment, number of administered doses, daily dose and combined drugs for each patient were collected.
• Pertuzumab cost for each patient was calculated.
• Statistical analysis: Frequencies, mean and standard deviation (σ) were calculated, depending on the type of variable.

RESULTS

POPULATION

• 50 patients women.
• Mean age of 51.2 years [27-77].
• 16 patients (32%) were treated for metastatic disease (MD).
• 34 (68%) were early-staged patients with a neoadjuvant therapy (NAT).

METASTATIC DISEASE (n=16)

• 15 patients received pertuzumab as first-line therapy.
• 1 patient had received multiple lines of therapy previously to pertuzumab.
• The regime chosen was the triplet pertuzumab + trastuzumab + chemotherapy:
  ➢ Paclitaxel n=8,
  ➢ Docetaxel n=5,
  ➢ Nab-paclitaxel n=2,
  ➢ Vinorelbine n=1.
• Mean Dose Pertuzumab: 481 mg
• Mean Cycles / Patient: 13.6

NEoadjuvant therapy (n=34)

• All patients received chemotherapy previously to surgery, according to the schedule.

<table>
<thead>
<tr>
<th>Cycles / 14 days</th>
<th>Cycles / 21 days</th>
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</thead>
<tbody>
<tr>
<td>Epirubicine 90mg/m²</td>
<td>Pertuzumab 420 mg (840 mg)</td>
</tr>
<tr>
<td>Cyclophosphamide 600 mg/m²</td>
<td>Trastuzumab 6 mg/kg (8 mg/kg)</td>
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<tr>
<td>Paclitaxel 80 mg/m² weekly</td>
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• Subsequent to the surgery trastuzumab to complete a year of therapy.
• Mean Dose Pertuzumab: 545 mg
• Mean Cycles / Patient: 3.68

COSTS PERTUZUMAB THERAPY

• Total incremental cost : 895,212€
  • 531,174€ for MD
  • 364,038€ for NAT
• Pertuzumab mean incremental cost per patient
  • MD : 33,198€ (σ=29,069) [6.868-107.608]
  • NAT : 10,707€ (σ=1.757) [4.579-13.737]

CONCLUSIONS

• There is a major number of neoadjuvant treatments including pertuzumab in comparison with MD treatments even though neoadjuvant indication approval was later.
• Treatment costs associated to NAT are significantly fewer as the duration of this treatment is shorter than MD.
• Incremental cost associated to pertuzumab has meant an important rise in total expenditure for the treatment of metastatic Her2-positive Breast Cancer.