Mastectomia Contralateral em Pacientes BRCA Mutadas - Impacto na Sobrevida -

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2019
MASTECTOMIA PROFILÁTICA CONTRALATERAL

- Testes genéticos
- Medo de morrer pelo câncer
- Medo de ter de lidar novamente!
- Simetrização
- Elevada Eficácia
MASTECTOMIA PROFILÁTICA CONTRALATERAL

- Diagn CA (BRCA+) – CURA – ter novo CA contratual – morte (LEVA TEMPO)
- Risco de recorrência (frente a outras terapias)
- Risco de câncer contratual (frente a outras terapias)
- Ponderação dos prejuízos
- Impacto da informação
Multi-gene testing is a new and rapidly growing field, but there is currently a lack of evidence regarding proper procedures and risk management strategies that should follow testing, especially when pathogenic or likely pathogenic variants are found for moderate-penetrance genes and when a VUS is found.
Research Contralateral mastectomy and survival after breast cancer in carriers of BRCA1 and BRCA2 mutations: retrospective analysis

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1. Kelly Metcalfe, professor1, adjunct scientist2,
2. Shelley Gershman, registered nurse12,
3. Parviz Ghadirian, professor3,
4. Henry T Lynch, professor4,
5. Carrie Snyder, registered nurse4,
6. Nadine Tung, associate professor5,
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Unilateral mastectomy (n=209)</th>
<th>Bilateral mastectomy (n=181)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at diagnosis (years)</td>
<td>43.6</td>
<td>41.3</td>
<td>0.01</td>
</tr>
<tr>
<td>Year of diagnosis</td>
<td>1987</td>
<td>1994</td>
<td>&lt;10 to 4</td>
</tr>
<tr>
<td>Size of tumour (cm):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-2</td>
<td>114 (55.9)</td>
<td>114 (65.1)</td>
<td>0.07</td>
</tr>
<tr>
<td>2.1-5</td>
<td>90 (44.1)</td>
<td>61 (34.9)</td>
<td></td>
</tr>
<tr>
<td>Mean (range) size</td>
<td>2.3 (0.2-5.0)</td>
<td>1.9 (0.1-5.0)</td>
<td>0.006</td>
</tr>
<tr>
<td>Positive lymph nodes</td>
<td>89 (43.0)</td>
<td>70 (38.7)</td>
<td>0.39</td>
</tr>
<tr>
<td>Chemotherapy</td>
<td>115 (57.5)</td>
<td>121 (68.4)</td>
<td>0.03</td>
</tr>
<tr>
<td>Contralateral breast cancer</td>
<td>70 (33.5)</td>
<td>x</td>
<td>1 (0.6)</td>
</tr>
<tr>
<td>Died from breast cancer</td>
<td>61 (29.2)</td>
<td>x</td>
<td>18 (9.9)</td>
</tr>
<tr>
<td>Died from breast cancer</td>
<td>61 (29.2)</td>
<td>18 (9.9)</td>
<td></td>
</tr>
<tr>
<td>Radiotherapy</td>
<td>41 (20.5)</td>
<td>30 (16.6)</td>
<td>0.33</td>
</tr>
<tr>
<td>BRCA1</td>
<td>123 (60.0)</td>
<td>103 (57.5)</td>
<td>0.63</td>
</tr>
<tr>
<td>BRCA2</td>
<td>82 (40.0)</td>
<td>76 (42.5)</td>
<td></td>
</tr>
</tbody>
</table>
Contralateral mastectomy was associated with a **48%** reduction in death from breast cancer (hazard ratio 0.52, 95% confidence interval 0.29 to 0.93; \( P=0.03 \)).

In a propensity score adjusted analysis of 79 matched pairs, the association **was not significant** (0.60, 0.34 to 1.06; \( P=0.08 \)).
Contralateral breast cancer risk in BRCA1 and BRCA2 mutation carriers.


A retrospective, multicenter, cohort study was performed from 1996 until 2008 and comprised 2,020 women with unilateral breast cancer (index patients, n = 978; relatives, n = 1,42) from 978 families who had a BRCA1 or BRCA2 mutation.
Cumulative Probability of Contralateral Breast Cancer (%)

Time Between First and Contralateral Breast Cancer (years)

- Index patients: n = 978
- Relatives: n = 1,042

P < .001
Pacientes BRCA 1,2 mutadas com câncer de mama

- 10y risk 31% (<40y)
- 10y risk 8% (>50y)
Pacientes BRCA 1,2 mutadas com câncer de mama

- 25y risk 63% (<40y)
- 25y risk 19,6% (>50y)
MAMMACTOMIA PROFILÁTICA CONTRALATERAL
Improved overall survival after contralateral risk-reducing mastectomy in BRCA1/2 mutation carriers with a history of unilateral breast cancer: A prospective analysis

Bernadette A.M. Heemskerk-Gerritsen
Matti A. Rookus
Cora M. Aalfs
... See all authors

Int J Cancer. 2015

https://doi.org/10.1002/ijc.29032
**Table 3.** Efficacy of contralateral risk-reducing mastectomy on overall survival

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Group</th>
<th>Person years of observation</th>
<th>Deaths</th>
<th>Mortality^b^ (95% CI)</th>
<th>HR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>Surveillance</td>
<td>3007</td>
<td>65</td>
<td><strong>21.6</strong> (16.9–27.6)</td>
<td>Ref.</td>
</tr>
<tr>
<td></td>
<td>CRRM</td>
<td>1975</td>
<td>19</td>
<td><strong>9.6</strong> (6.1–15.1)</td>
<td>0.43 (0.26–0.72)(^c^)</td>
</tr>
<tr>
<td>(b)</td>
<td>Surveillance</td>
<td>2673</td>
<td>56</td>
<td>21.0 (16.1–27.2)</td>
<td>Ref.</td>
</tr>
<tr>
<td></td>
<td>CRRM</td>
<td>1837</td>
<td>18</td>
<td>9.8 (6.2–15.5)</td>
<td>0.46 (0.27–0.79)(^c^)</td>
</tr>
</tbody>
</table>

\(^a^\) Surveillance
\(^b^\) Mortality
\(^c^\) CRRM
\(^d^\)
Improved overall survival after contralateral risk-reducing mastectomy in BRCA1/2 mutation carriers with a history of unilateral breast cancer: A prospective analysis
Improved overall survival after contralateral risk-reducing mastectomy in BRCA1/2 mutation carriers with a history of unilateral breast cancer: A prospective analysis
Of note, the risk of developing CBC is not the same for all PBC patients, and may depend on age at PBC diagnosis, ER-status, and given adjuvant systemic therapy.

Greatest survival benefits after CRRM are expected in subgroups of patients at high risk of CBC and low risk of primary BC-specific mortality.

PBC patients (<40 years), in patients having a PBC with differentiation grade 1/2 and/or no triple-negative phenotype, and in patients not treated with adjuvant chemotherapy.

Ideally, one should offer CRRM to PBC patients with a high CBC risk and a low risk of dying from PBC.
The impact of contralateral mastectomy on mortality in BRCA1 and BRCA2 mutation carriers with breast cancer.

Narod SA¹.

Author information:
1. Womens College Research Institute and Dalla Lana School of Public Health, University of Toronto
The cumulative mortality from the first breast cancer will be 9.6% at 5 years, 18.3% at 10 years, and 33.3% at 20 years.

The cumulative mortality from new contralateral breast cancers will be 0.4% at 5 years, 1.7% at 10 years, and 6.8% at 20 years.

At 20 years, the probability of dying of contralateral breast cancer is 6.8%
Risk reduction and survival benefit of prophylactic surgery in BRCA mutation carriers, a systematic review.

Ludwig KK¹, Neuner J², Butler A³, Geurts JL⁴, Kong AL⁵.

Author information

¹Department of Surgery, Indiana University School of Medicine, Carmel, IN, USA. ²Division of General Internal Medicine, Department of Medicine, Medical College of Wisconsin, Milwaukee, WI, USA. ³Division of Surgical Oncology,
Results Bilateral risk-reducing mastectomy provides a 90% to 95% risk reduction in BRCA mutation carriers, although the data do not demonstrate improved mortality.
Você recomenda esta página?

[Botão Sim] [Botão Não]
Consensus Guideline on Genetic Testing for Hereditary Breast Cancer
1. Breast surgeons, genetic counselors, and other medical professionals knowledgeable in genetic testing can provide patient education and counseling and make recommendations to their patients regarding genetic testing and arrange testing.

2. Genetic testing should be made available to all patients with a personal history of breast cancer.

3. Patients who had genetic testing previously may benefit from updated testing.
CLINICAL STAGE | WORKUPa
--- | ---
T0-3, N1, M0 | • History and physical exam
• Diagnostic bilateral mammogram; ultrasound as necessary
• Axillary assessment with exam; ultrasound or other imaging as necessary, and percutaneous biopsy of suspicious nodes
• Pathology reviewc
• Determination of tumor estrogen/progesterone receptor (ER/PR) status and HER2 statusd
• Genetic counseling if patient is at riske for hereditary breast cancer
• Breast MRIf (optional), with special consideration for mammographically occult tumors
• Counseling for fertility concerns if premenopausal; pregnancy test in all women of childbearing potentialg
• Assess for distressh

T1-3, N0-1, M0 | Consider additional studies only if directed by signs or symptoms:i
• Complete blood count (CBC)
• Comprehensive metabolic panel, including liver function tests and alkaline phosphatase
• Bone scan indicated if localized bone pain or elevated alkaline phosphatase or sodium fluoride PET/CTj (category 2B)
• Abdominal ± pelvic diagnostic CT with contrast or MRI with contrast indicated if elevated alkaline phosphatase, abnormal liver function tests, abdominal symptoms, or abnormal physical examination of the abdomen or pelvis
• Chest diagnostic CT with contrast (if pulmonary symptoms present)
• FDG PET/CTk,l (optional)

If considering preoperative systemic therapyb for T0-4, N1-3, M0 or T2-4, N0, M0 | See Workup Prior to Preoperative Systemic Therapy (BINV-11)

Recurrent or Stage IV (M1) | See Workup for Recurrent or Stage IV (M1) Disease (BINV-18)
TESTING CRITERIA FOR HIGH-PENETRANCE BREAST AND/OR OVARIAN CANCER SUSCEPTIBILITY GENES
(This often includes BRCA1, BRCA2, CDH1, PALB2, PTEN, and TP53 among others. See GENE-A for a more complete list.)

Testing is clinically indicated in the following scenarios:
1. Individuals with any blood relative with a known pathogenic/likely pathogenic variant in a cancer susceptibility gene
2. Individuals meeting the criteria below but with previous limited testing (e.g., single gene and/or absent deletion duplication analysis) interested in pursuing multi-gene testing
3. Personal history of cancer
   - Breast cancer with at least one of the following:
     - Diagnosed at age ≤45 y; or
     - Diagnosed at age 46–50 y with:
       - Unknown or limited family history; or
       - A second breast cancer diagnosed at any age; or
       - ≥1 close blood relative with breast, ovarian, pancreatic, or high-grade (Gleason score ≥7) or intraductal prostate cancer at any age
     - Diagnosed at age ≤60 y with triple-negative breast cancer;
   - Metastatic or intraductal prostate cancer at any age
   - High-grade (Gleason score ≥7) prostate cancer with:
     - Ashkenazi Jewish ancestry; or
     - ≥1 close relative with breast cancer at age ≤50 y or ovarian, pancreatic, or metastatic or intraductal prostate cancer at any age; or
     - ≥2 close relatives with breast or prostate cancer (any grade) at any age.
   - A mutation identified on tumor genomic testing that has clinical implications if also identified in the germline
   - To aid in systemic therapy decision-making, such as for HER2-negative metastatic breast cancer
4. Family history of cancer
   - An affected or unaffected individual with a first- or second-degree blood relative meeting any of the criteria listed above.

If testing criteria not met, consider testing for other hereditary syndromes as per NCCN Screening Guidelines.
Studies have reported *BRCA1* mutations in 7% to 28% of patients with triple-negative breast cancer.\(^7,113,146-153\)

Triple-negative disease, *BRCA* mutation carriers were diagnosed at a younger age compared with non-carriers, 39 years.
60a

TNM0

TNBC

BRCA 1

MASTECTOMIA CONTRALATERAL?