Nipple areola complex sparing mastectomy on prophylactic and oncologic surgery. Potential impact of its application in a referral centre and literature review.

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INTRODUCTION

Even though breast conserving therapy has become the gold standard surgical treatment for breast cancer, in our institution 34.7% of the patients still undergo mastectomy. Nipple sparing mastectomy (NSM) is becoming widely accepted, particularly in those patients that undergo prophylactic surgery with reconstruction, due to its superior cosmetic results. NSM can also be used in highly selected cancer patients as an effective procedure if it does not compromise oncologic safety.

METHODOLOGY

- ☐ Literature review of the nipple areola complex (NAC) sparing mastectomy on prophylactic and breast cancer management.
- Additionally we evaluate the impact it would have in our referral centre, selecting patients among those who underwent a mastectomy between 2015-2018, according to the inclusion criteria of the National Comprehensive Cancer Network (NCCN) 2017 Guidelines.

RESULTS

The 2017 NCCN Guidelines suggest the performance of NSM, according to the retrospective data in:

- early-stage tumours
- biologically favourable carcinomas (Nottingham grade I or II, node negative, HER2 negative, no lymphovascular invasion)
- infiltrating ductal carcinoma (IDC) or ductal carcinoma in situ (DCIS) that are >2cm from the nipple

Despite total removal of glandular breast tissue and the low rate of recurrence and/or nipple involvement expected, assessment of nipple free margins should be mandatory every time to reduce the risk of occult NAC involvement.

In our Institution (*Hospital Universitario 12 de Octubre*, Madrid, Spain) 178 mastectomies were performed for breast cancer treatment and 18 for risk reduction between 2015-2018. According to the inclusion criteria of the NCCN Guidelines, 57 patients (29%) could have undergone a NSM (27 patients with IDC, 12 with DCIS and 18 BRCA mutation carriers).

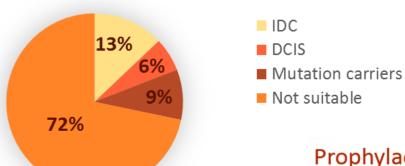
National

Cancer

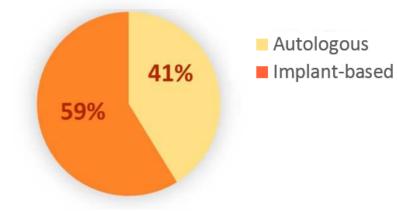
Network®

Comprehensive

Oncologic and prophylactic mastectomy n=196
57 candidate for NSM



Prophylactic mastectomy n=18 94,4% immediate reconstruction



NSM has become a subject of increased attention. It's a safe option of treatment in patients with early-stage tumours and biologically favourable carcinomas. Prospective trials, with long-term follow up and homogenous samples are needed to establish the inclusion criteria and management of this patients: pathologic factors (tumour stage, molecular subtypes...), preoperative imaging study, safety distance of the tumour to the nipple, surgical technique, intraoperative study of the NAC (frozen section examination), and role of radiotherapy.