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**Acute toxicity in patients with breast cancer submitted to hypofractionated RT on whole breast.**

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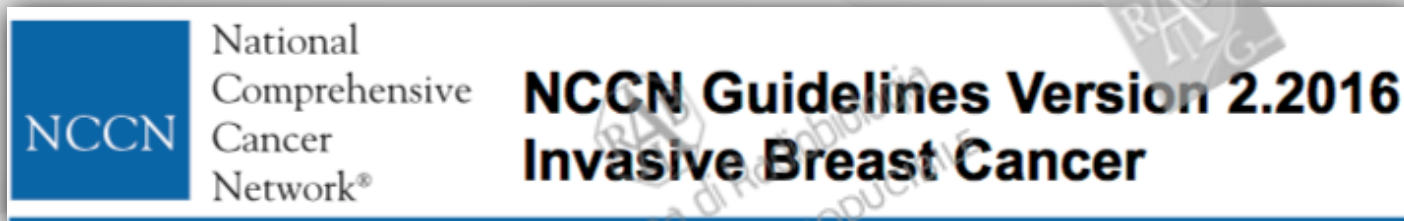
# *Involved Centres*

- *A.O.U. G.Martino, Messina;*
- *A. O. Papardo, Messina;*
- *A.O. Cannizzaro, Catania;*
- *REM Radioterapia, Catania.*



# Aims

To evaluate retrospectively acute skin and lung toxicities in patients submitted to hypofractionated whole breast Radiotherapy after conservative surgery.



Lumpectomy with surgical axillary staging.<sup>l,kk</sup> If SLNB performed prechemotherapy and negative findings, omit axillary lymph node staging. [See BINV-11](#)

- Complete planned chemotherapy regimen course if not completed preoperatively plus endocrine treatment if ER-positive and/or PR-positive (sequential chemotherapy followed by endocrine therapy).
- Adjuvant radiation therapy<sup>r</sup> post-lumpectomy based on tumor characteristics at diagnosis as per [BINV-2](#) and Endocrine therapy if ER-positive and/or PR-positive<sup>z</sup> (category 1)
- Complete up to one year of trastuzumab therapy if HER2-positive (category 1). May be administered concurrently with radiation therapy<sup>r</sup> and with endocrine therapy if indicated.



# *Patients & Methods*

We retrospectively evaluated breast cancer patients in our Centres from March 2014 to January 2016:

- 161 patients affected by breast cancer, previously submitted to breast conservative surgery, have been recruited.
- In 26 patients we could not evaluate toxicity because they lost the follow up controls.
- The characteristics of the patients were: T1/ N0 M0, RF +, dose dishomogeneity < 10%.
- None of them underwent to chemotherapy.





# Methods

We recorded clinical skin toxicity report using RTOG scale and both breast and lung dosimetric studies including breast volumes, isodoses distribution, and lung constraints evaluation: precisely we considered V5, V12 and V20 as constraints for lung.

TOXICITY	0	1	2	3	4
Skin	None or no change	Scattered macular or papular eruption or erythema that is asymptomatic	Scattered macular or papular eruption or erythema with pruritis or other associated symptoms	Generalized symptomatic macular, papular, or vesicular eruption	Exfoliative dermatitis or ulcerating dermatitis

# Methods II

- Several hypofractionated schemes were used: the daily dose fraction was between 2,65-2,75 Gy, the number of fractions was 15 or 16;
- Boost range was 1,2 Gy-3 Gy per fraction, dose was delivered in a variable number of fractions (2, 3, 5);
- The predominant schemes used were: 2.65 Gy/16 fractions and 2.75 Gy/16 fractions;
- All patients completed the radiotherapy program.



# Results

- Acute toxicity was evaluated in 135 patients:  
G0 toxicity was observed in 102 patients,  
G1 toxicity in 31,  
G2-3 toxicity in 2 patients.



- No relation between toxicity and total volume irradiated.

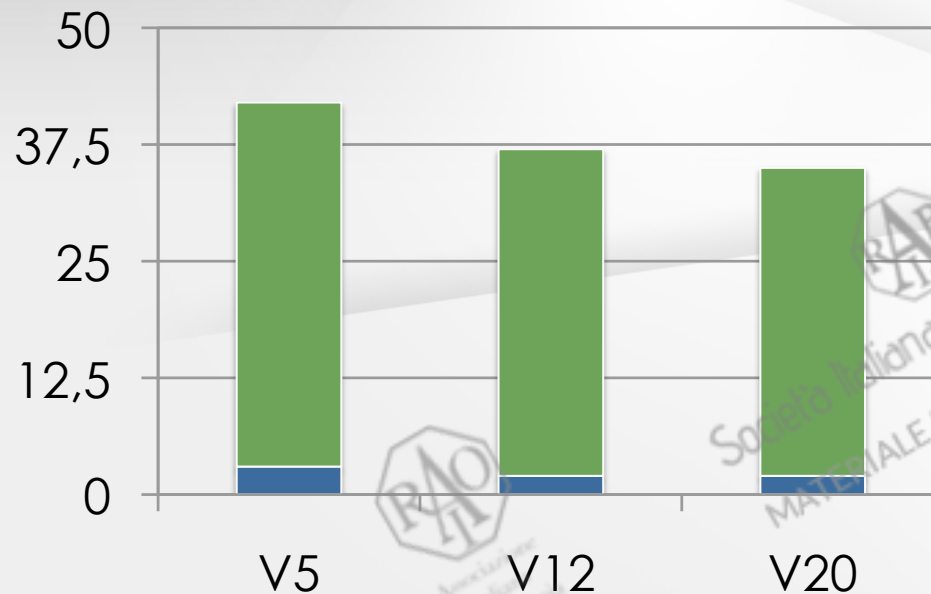
# Results & Conclusion

- Lung toxicity and constraints:

V5: 15,74% (range 2,90-39%);

V12: 9,92% (range 1,63-35%);

V20: 8,34% (range 2,29-33%).



- The median value of CTV volumes was 693,6cc (77,1-1720,1).

Hypofractionated RT on whole breast can be considered a valid and safe therapeutic option in this subgroup of patients.



# Thanks for Watching



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MATERIALE NON RIPRODUCIBILE

