

Should radiotherapy after primary systemic therapy be administered with the same recommendations made for operable breast cancer patients who receive surgery as first treatment? A critical review

Simona Allis¹, Alessia Reali¹, Gianluca Mortellaro¹, Francesca Arcadipane², Sara Bartoncini², and Maria Grazia Ruo Redda¹

¹Department of Clinical and Biological Sciences, Radiation Oncology Unit, University of Turin, S. Luigi Hospital, Orbassano; ²Department of Medical and Surgical Sciences, Radiation Oncology Unit, University of Turin, S Giovanni Battista Hospital, Turin, Italy

ABSTRACT

Primary systemic therapy is not only used in patients with locally advanced inoperable non-metastatic breast cancer but also for operable stage II and III cancer aimed at breast conservation. The indications for local-regional radiotherapy for patients who receive primary systemic therapy are still evolving. The purpose of this article is to provide a comprehensive discussion of how primary systemic therapy in operable breast cancer patients could affect the indications of radiotherapy to optimize local-regional treatment. An overview of available literature data regarding neoadjuvant treatment and radiotherapy is analyzed and discussed. Considering the variability of data on this issue, an appropriate approach could still be to tailor treatment decision to the individual clinical case.

Key words: breast radiotherapy, conservative surgery, operable breast cancer, postmastectomy breast radiotherapy, primary systemic therapy.

Conflict of interest: None.

Correspondence to: Maria Grazia Ruo Redda, MD, Department of Clinical and Biological Sciences, University of Turin, Ospedale S Luigi Gonzaga, Regione Gonzole 10, 10043 Orbassano, Turin, Italy.
Tel +39-11-9026043;
fax +39-11-9026044;
email mariagrazia.ruoreda@unito.it

Received December 20, 2011;
accepted March 23, 2012.