Patterns of postoperative radiotherapy for head and neck cancer in Italy: a prospective, observational study by the head and neck group of the Italian Association for Radiation Oncology (AIRO)

Mauro Palazzi1, Daniela Alterio2, Sandro Tonoli3, Orietta Caspian4, Andrea Bolner5, Sara Colombo6, Stefano Dall’Oglio7, Luciana Lastrucci8, Feisal Bunkheila9, Michele Cianciulli10, Riccardo Vigna Taglianti11, Domenico Cante12, Anna Merlotti13, Ernestina Bianchi14, Monica Rampino15, Andrea Podhradska16, Antonella Fontana17, Fabiola Paier18, Francesco Miccichè19, Roberto Manzo20, Stefano Ursino21, Lorenza Bruschieri22, Almalina Bacigalupo23, Tiziana Iannone24, Raffaella Barca25, and Stefano Tomatis26

From the Radiotherapy Units of the following institutions in Italy: 1Niguarda Ca’ Granda Hospital, Milan; 2European Institute of Oncology, Milan; 3Istituto del Radio “O. Alberti”, University Hospital, Brescia; 4Isola Tiberina Fatebenefratelli Hospital, Rome; 5S. Chiara Hospital, Trento; 6Policlinico S. Matteo Foundation, Pavia; 7University Hospital, Verona; 8Donato USL8 Hospital, Arezzo; 9Policlinico S. Orsola Hospital, Bologna; 10S. Camillo Hospital, Rome; 11S. Croce e Carle Hospital, Cuneo; 12ASL TO4 Hospital, Ivrea; 13Ospedale di Circolo, Busto Arsizio; 14S. Anna Hospital, Como; 15S. Giovanni Battista Le Molinette University Hospital, Torino; 16S. Gerardo Hospital, Monza; 17S. Maria Goretti Hospital, Latina; 18Policlinico Careggi University Hospital, Florence; 19Policlinico A. Gemelli University Hospital, Rome; 20C. Ascalesi Hospital, Naples; 21Arcispedale S. Anna Hospital, Ferrara; 22Treviso Caravaggio Hospital, Treviglio; 23National Cancer Research Institute, Genoa; 24S. Martino Hospital, Belluno; 25Ecomedica, Empoli; 26Medical Physics Unit, Istituto Nazionale Tumori, Milan, Italy

ABSTRACT

Aims and background. Our previous survey showed that the patterns of postoperative radiotherapy (PORT) for head and neck cancer (HNC) in Italy might be suboptimal. A prospective observational study was therefore designed to evaluate this issue in greater detail.

Methods. All radiotherapy centers involved in the HNC Working Group of the Italian Radiation Oncology Association were asked to enter into the study all patients treated with PORT during a 6-month period.

Results. A total of 200 patients were accrued by 24 centers from December 2008 to May 2009. Larynx (38%) and oral cavity (34%) were the most common primary sites. The median time between surgery and the start of radiotherapy was 69 days (range, 25-215 days). Seventy-nine percent of cases with no evidence of risk factors for local recurrence were treated with high-dose radiotherapy to the primary site. In about 75% of cases the pN0 neck was included in the target volume. Concomitant chemotherapy was delivered to about 60% of patients with major risk factors and 21% of patients with no risk factors.

Conclusions. Three issues emerged from our study as potential targets for future investigations: the impact on clinical outcome of the interval between surgery and the start of PORT; factors driving radiation oncologists to overtreat volumes at low risk of recurrence; and problems associated with the delivery of concomitant chemotherapy.

Key words: head and neck cancer, postoperative radiotherapy, observational study.

Correspondence to: Mauro Palazzi, SC Radioterapia, Ospedale Niguarda Ca’ Granda, P.le Ospedale Maggiore 3, 20100 Milano, Italy. Tel +39-02-64442333; Fax +39-02-64442834; e-mail mauro.palazzi@ospedaleniguarda.it

No conflicts of interest exist for any of the authors of this paper.

Received May 31, 2010; accepted December 6, 2010.