

## 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 Palazzi<sup>1</sup>, Daniela Alterio<sup>2</sup>, Sandro Tonoli<sup>3</sup>, Orietta Caspiani<sup>4</sup>, Andrea Bolner<sup>5</sup>, Sara Colombo<sup>6</sup>, Stefano Dall'Oglio<sup>7</sup>, Luciana Lastrucci<sup>8</sup>, Feisal Bunkheila<sup>9</sup>, Michele Cianciulli<sup>10</sup>, Riccardo Vigna Taglianti<sup>11</sup>, Domenico Cante<sup>12</sup>, Anna Merlotti<sup>13</sup>, Ernestina Bianchi<sup>14</sup>, Monica Rampino<sup>15</sup>, Andrea Podhradská<sup>16</sup>, Antonella Fontana<sup>17</sup>, Fabiola Paiar<sup>18</sup>, Francesco Micciché<sup>19</sup>, Roberto Manzo<sup>20</sup>, Stefano Ursino<sup>21</sup>, Lorenza Bruschi<sup>22</sup>, Almalina Bacigalupo<sup>23</sup>, Tiziana Iannone<sup>24</sup>, Raffaella Barca<sup>25</sup>, and Stefano Tomatis<sup>26</sup>

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

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### ABSTRACT

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**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.

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**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 +39-02-64442233;  
fax +39-02-64442834;  
e-mail  
mauro.palazzi@ospedaleniguarda.it

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