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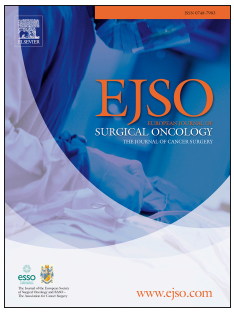

European interpretation of North American Post Mastectomy Radiotherapy Guideline Update

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EJSO editorial

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Recently, the American Society of Clinical Oncology (ASCO), American Society for Radiation Oncology (ASRO) and the Society of Surgical Oncology (SSO) have published their joint guidelines on postmastectomy radiotherapy[1]. The role of postmastectomy radiotherapy (PMRT) in patients with 1-3 [positive nodes has long been controversial with sceptics [2] and supporters[3]. The most recent guidelines address four specific questions: Is PMRT indicated (1) in patients withT1-2 tumours with 1-3 positive nodes who undergo axillary lymph node dissection? (2) In patients with T1-2 tumours with a positive sentinel node who do not undergo completion axillary lymph node dissection? (3) in patients with stage I or II cancers who have received neoadjuvant systemic therapy (NAST) and (4) Should regional nodal irradiation (RNI) include the internal mammary nodes (IMNs) and/or supraclavicular-axillary apical nodes when PMRT is used in patients with T1-2 tumours with 1-3 positive axillary nodes?

These are decisions regularly faced by multidisciplinary breast cancer tumour board meetings and the North American update of their guideline is very timely. One of the issues which the authors discuss, is that many current clinical decisions regarding administration or omission of PMRT rely on extrapolation of data on 1133 patients with 1-3 positive nodes from studies in the EBCTCG overview[4] from the 1970s and 1980s. These patients did not have the same systemic treatments as in contemporary situations, and also had much higher recurrence rate and mortality[5]. Further, there is now more information on the potential long-term toxicity of treatment[6]. As a result the balance of potential benefit vs toxicity varies between physicians, which also leads to variation in shared informed decision making with the patient[1]. The panel concluded that there is clear evidence that PMRT reduced the risks of loco-regional failure, any recurrence and mortality for patients with T1-2,N1 disease. However more contemporary studies have shown (in common with results of breast conserving therapy[7]) a much lower risk for all endpoints including loco-regional failure rates which are only in the range of 4 - 10%. This reduction is attributable to a number of factors, including substantially improved systemic therapy. Following neoadjuvant chemotherapy in two NSABP trials, mastectomy alone without chest wall radiotherapy performed in this high risk group resulted in a chest wall recurrence rates of 7.8%-10.6% at 10 years for patients with T1-T2 node negative tumours and 12.3-17.6% in patients with T3 tumours that were node positive post chemotherapy. In patients who were clinical node positive at diagnosis but node negative after chemotherapy the recurrence rate after mastectomy without