



Letter to the Editor

Cervical node of unknown primary: Patterns of care and factors influencing the choice of clinical target volumes



The management of cervical lymphadenopathy (CUP) from an unknown primary (3% of all head and neck cancers) mostly relies on surgery and radiotherapy. While pan-mucosal irradiation from the nasopharynx to the hypopharynx and bilateral neck nodes reduces the risk of emergence of a mucosal primary or a nodal relapse, it has been associated with significant toxicity and long-term morbidity (mostly xerostomia, dysphagia). Owing to absence of randomized trial, institutional strategies have historically emerged that either consist of systematic selective unilateral nodal irradiation (+/- limited mucosal irradiation) or bilateral nodal and pan-mucosal irradiation using IMRT to spare the parotids [1,2].

A clinical scenari-based practice survey was proposed to head and neck GORTEC physicians on a website platform (May 2012–2013). Clinical target volumes (CTV) were examined with respect to node level, nodal stage, viral (human papilloma virus HPV, Epstein Barr Virus EBV) status and histological variants of squamous cell carcinomas (SCC) and their influence in the CTV decision-making process. Four true anonymous cases with N2–3 CUP with \geq two-year follow-up representative of several clinical presentations were chosen. A typical case was that of a N2 SCC CUP in level 2a in a heavy smoker. The impact of a higher nodal stage criteria was assessed using a massive undifferentiated N3 CUP in a Mediterranean 70-yo male (with implicit positive EBV, not assessed). The impact of another potential criterium, HPV status, was studied with a 50-yo woman without risk factor and cystic N2 SCC CUP in level 2a. The impact of histological SCC variants on CTV definition was investigated through the case of a fusiform SCC CUP in N1b level. Non-parametric Chi2 tests of response distributions and Kappa statistics were performed to assess inter-physician agreement with respect to irradiation of mucosal and nodal volumes.

Twenty-three physicians from 18 institutes participated in the study. Irradiation of high risk CTV was rather consensual and over 80% of physicians recommended bilateral irradiation for the N3 and HPV cases. However, consistency for all CTV taken together was poor, suggesting non consensual management of moderate/low risk areas. Kappa scores for overall CTV varied between 0.16 and 0.27 in case of a histological variant or positive viral status.

This survey illustrates variable agreement between physicians in terms of clinical target volumes. Pan-mucosal and bilateral neck irradiation is debated and rather dictated by extensive nodal disease (TxpN3) while pan-mucosal irradiation was rarely prescribed. Bilateral irradiation was common in the survey with contralateral neck irradiated at a low dose. The current literature either suggests that IMRT-based pan-mucosal is commonly used although recent retrospective studies suggest that CTV may be limited to the oropharynx, regardless of HPV status [2,3]. Our study suggests that

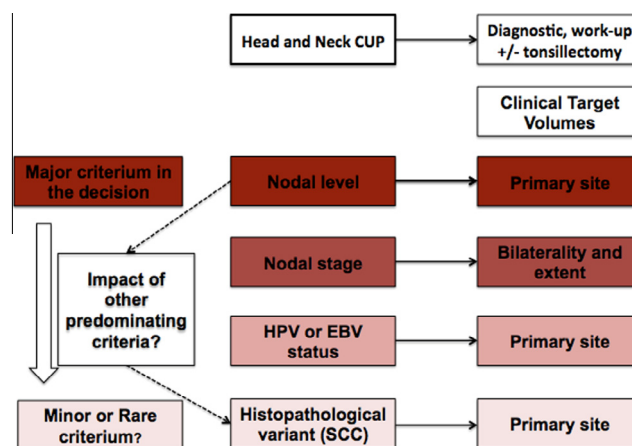


Fig. 1. Criteria involved in the decision to irradiate mucosal and nodal target volumes in the context of metastatic cervical lymph node from an unknown primary.

HPV, although regarded insufficient to change the therapeutic strategy, strongly influences the choice of CTV, to a similar extent as nodal stage and level. Conversely, the likelihood of specific primary site based on rare histological variants is yet poorly taken into account or ignored. Figs. 1 and 2 may be proposed based on our observations and the literature.

Contributions

I Troussier, J Thariat, V Roth designed the study and cases, did some statistics, wrote the manuscript and reviewed the final manuscript. E Chamorey did the statistics and reviewed the final manuscript. V Roth designed the electronic case report form-based survey.

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Disclosure

No disclosure.

Conflict of interest

None declared.

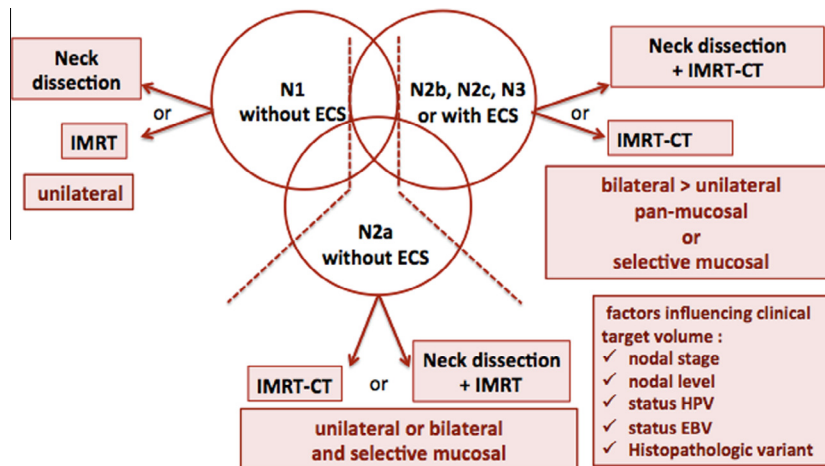


Fig. 2. Treatments and clinical target volumes in the context of metastatic cervical lymph node from unknown primary. Legend ECS: extracapsular spread.

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Available online 11 March 2014