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Letter to the editor

Letter to the Editor of Radiotherapy and Oncology regarding the paper entitled “Prospective Data Registration and Clinical Trials for Particle Therapy” by Langendijk et al.



As Radiation Oncologists specialized in pediatric cancer, we read with great interest the article from Langendijk et al. [1]. We applaud the efforts that EPTN wishes to make to “create a firm basis for evidence-based particle therapy at the European level”. Optimal robustness is of outmost importance for the collection of data and the elaboration of clinical trials to meet the high expectations of our radiation oncology community [2]. The operating centers bear an important responsibility for the opening of further centers depending on their results. We read that the DICOM RT gathering could be optional. We strongly believe that collecting DICOM-RT data is mandatory in addition to all Level 1 information proposed, for the following reasons:

- It is highly feasible to systematically upload a DICOM-RT plan in a database [3]. For example, the French Group of Pediatric Radiotherapy (GFRP) has organized this prospective gathering since 2013 of clinical data, DICOM-RT data and late toxicity data for all pediatric patients treated with radiotherapy in the 19 French reference centers, it is the PediaRT data base [4].
- With DICOM-RT data, doses delivered to organs at risks can be automatically retrieved and correlated with toxicity (implying that all EPTN centers will harmonize the definition of the names of the target volumes and OAR volumes).
- The EPTN argues for Quality Assurance (QA) of trials, an important part of QA is the prospective quality control of target volumes and dose delivery, with its known impact on outcome of patients [5,6]. Prospective QA of treatment plans is performed on DICOM-RT data. For example, prospective QA of pediatric radiotherapy will be performed for several pediatric European prospective trials in the QUARTET project [7].

Additionally, we would suggest that level 1 information also includes the following:

- Tumor histopathology based on CIM10 classification.
- Tumor stage.
- Referring center, type of referral (individual, conventions between hospitals, case discussion...).

References

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