Expert Anal Cancer Consensus Staging (ExACT)

Summary

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Accurate pre-therapeutic imaging of the tumour and regional lymph nodes, is - in addition to clinical examination and assessment for distant metastases -essential for prognostication and guiding treatment. Nodal staging has been validated as an important independent prognostic factor [EORTC22861; RTOG9811] and the nodal stage as well as the precise location of involved lymph nodes (mesorectum, presacral space, internal iliac lymph nodes, external iliac lymph nodes, ischiorectal fossa, inguinal lymph nodes) informs the planning of radiotherapy treatment especially when using more conformal techniques such as intensity modulated radiotherapy. It is therefore essential to optimize and standardize pre-treatment imaging to provide accurate and reproducible information to guide treatment decision, development of radiotherapy atlases and clinical trial design.

Whereas there currently exist a lack of consensus as to which staging modality should be considered as the gold standard for local staging of the tumour (T) and detection of lymph node involvement (N), the use of multi-parametric Magnetic Resonance Imaging (MRI) of the pelvis has been endorsed by international guidelines (NCCN, ESMO/ESTRO).

An expert panel of radiologist and radiation oncologists with expertise in anal cancer diagnosis and treatment identified by the Anal Staging Subgroup of the International Rare Cancer Incentive (IRCI) will be invited to participate. The panelists will be assigned into groups based on the geographical location and local practice. Each panelist will be provided with access to a series of anonymized MRI datasets of patients with newly diagnosed anal cancer and asked to provide a TNM stage as well as to identify sites of involved nodes (using a standardised proforma – Appendix1). Each case was selected for the presence of MRI sequences like these:

- T2w TSE sagittal [T2-w sagittal turbo spin echo (TSE) sequence covering the pelvis]
- T1w TSE axial [sequence for pelvic nodal detection]
- T2-w TSE axial [sequence of the pelvis]
- T2w TSE sFOV [high-resolution small-field-of-view T2-w TSE sequences perpendicular and parallel to the anal canal]
- DWI [single shot spin echo-echo planar imaging DWI]
- ADC parametric map [apparent diffusion coefficient (ADC) maps]

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- Guy's and St Thomas' Hospital in London, United Kingdom
 - $^{\circ}$ Special thanks to Dr Kasia Owczarczyk, MD from the Department of Radiotherapy,
 - ° Adrian Green, Dr Davide Prezzi and Professor Vicky Goh, from the Department of Cancer Imaging
- Professor Richard Adams, Velindre Cancer Centre, Cardiff, Wales

Data Access Data Access

This is a limited access data set. If you are an investigator on this project, to request access to ExACT data, please contact help@cancerimagingarchive.net.

Data Type	Download all or Query/Filter	License
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Images,(DICOM, 1.6 GB)	Download Search (Download requires NBIA Data Retriever)	TCIA Restricted
Clinical data (CSV)	Please contact help@cancerimagingarchive.net to request access to ExACT clinical data.	TCIA Restricted
Proforma for project panelists (fillable pdf, 575 kB)	Download	CC BY 4.0

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Additional Resources for this Dataset

The following external resources have been made available by the data submitters. These are not hosted or supported by TCIA, but may be useful to researchers utilizing this collection.

- Suggested DICOM viewers for measurements:
 - o https://viewer.ohif.org/
 - https://horosproject.org/ (MacOS)

<u>Detailed Description</u> Detailed Description

Image Statistics	Radiology Image Statistics
Modalities	MR
Number of Patients	30
Number of Studies	30
Number of Series	179
Number of Images	6,400
Images Size (GB)	1.6

<u>Citations & Data Usage Policy</u> Citations & Data Usage Policy

Users must abide by the TCIA Data Usage Policy and Restrictions. Attribution should include references to the following citations:

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① Data Citation

(i)

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① TCIA Citation

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