Adopting the Sectra Lesion Tracking Tool for RECIST 1.1 in Renal Cell Cancer patients: First in the UK Pilot Study

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Objective:

RECIST 1.1 is the standard systematic radiological response evaluation criteria used in cancer clinical trials. Sectra is the leading medical imaging enterprise spanning 1/3rd of acute and specialist UK NHS trusts. Sectra Lesion Tracking (SLT) is an integrated advanced visualisation surveillance tool, tracking the number and size of lesions with dynamic disease monitoring. Launched in 2016, it is currently installed in 39/45 trust Sectra systems.

Methods:

Seven metastatic renal cell cancer patients recruited on 2 randomised controlled trials from 2015 to 2021 were retrospectively evaluated at our district general hospital. They had radiologist lesion tracked, manually calculated RECIST 1.1 outcomes for restaging/response assessment CT scans. We used the SLT to track lesions and generate output via its embedded RECIST 1.1 calculator. Performance wise, concordance percentage of target lesion and overall response amongst two modalities was calculated. Time distribution wise, nonparametric central tendencies i.e., median was used to compare.

Results:

All 7 patients had a baseline and first restaging CT scan for trial intervention. 5/7 had second restaging CT scan. 1/7 had no identifiable target lesion. Concordance percentage for target lesion and overall response was 66.7% and 71.4% respectively in the first restaging whereas 75% and 80% in the second restaging CT scan respectively. The median time lag during first and second restaging CT for manual RECIST was 5760- and 2400-minutes vs 10 and 4 minutes for SLT RECIST respectively. Massive outlier delays were noted for manual RECIST i.e., 20 and 21 days for first and restaging CTs respectively.

Conclusions:

The significant time savings and reasonably higher accuracy of SLT over existing standard creates higher radiologist reporting capacity to eliminate the NHS cancer report backlog. Till date, we have nil published or presented evidence in the UK. Our results not only warrant national adoption but also invites deployment in real world practice with promising time to cancer treatment reductions.

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