Radiomics in Clinical Trials - The Rationale, Current Practices, and Future Considerations

All Day Room: AI Community, Learning Center Digital Education Exhibit

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TEACHING POINTS
- Radiomics involves deep quantitative analysis of radiological images for structural and/or functional information.
- It is a phenomic assessment of disease to understand lesion microstructure, microenvironment and molecular/cellular function.
- In oncology, it helps us accurately classify, stratify and prognosticate tumors based on if, how and when they transform, infiltrate, involute or metastasize.
- Utilizing radiomics in clinical trials is exploratory, and not an established end-point.
- Integrating radiomics in an imaging-based clinical trials involves a streamlined workflow to handle large datasets, robust platforms to accommodate machine learning calculations, and seamless incorporation of derived insights into outcomes matrix.

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- Disease prognostication
- Therapy response prediction & assessment
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