

## Artificial Intelligence and Radiology

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Radiology has tremendously advanced in recent decades with its prime role in the health care sector. With the exponential increase of radiology investigations being performed, a potential problem is however being faced due to increasing overload in the radiology sphere and a dearth of radiology professionals. This has led to major burnout among the radiologists which is of deep concern.

The incorporation of machine learning and deep learning has enabled qualitative as well as quantitative improvement in various fields of medicine with major use in diagnostic modalities.

Artificial intelligence (AI) has increasingly been employed in the field of oncologic imaging for disease screening, diagnosis, staging, planning as well as monitoring of treatment. AI-based detection tools have been intensely researched for their incorporation in emergencies such as polytrauma, and cardiovascular and cerebrovascular accidents. Designed protocols for the various investigations incorporating AI have dramatically reduced the overall time for investigation and its reporting which had ultimately resulted in early and efficient patient care.

Although AI had leapfrogged in recent years, its utilization has not been at a constant pace. A major concern is still its application in the various protocols and workflow in radiology. More research into the field with its acceptance and utilization by the radiology personnel is still warranted.