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강연제목: 방사선종양학 분야에서의 다중 모달 대규모 언어 모델 활용/ Multi-modal LLM-driven Innovations in Radiation Oncology

Abstract:

The integration of Artificial Intelligence (AI), particularly through Large Language Models (LLMs), into radiation oncology marks a significant advancement in patient care and treatment outcomes. Historically, the field has evolved from utilizing Convolutional Neural Networks (CNNs) for basic image segmentation and classification to adopting more comprehensive AI models capable of processing vast amounts of multi-modal data. The advent of scalable models like Chat-GPT represents a significant paradigm shift, offering more versatile and powerful tools in medical practice. The application of multi-modal LLMs in tasks such as target volume contouring, clinical note summarization, and treatment plan suggestion demonstrates the potential of AI to revolutionize radiation oncology. This progression highlights the need for diverse datasets, substantial computational resources, and continuous model refinement. The future of radiation oncology, driven by AI and particularly LLMs, promises to enhance personalized patient care through precision in tumor localization, treatment adaptability, and workflow optimization, ushering in a new era of patient-centric approaches and improved decision support, treatment planning, and quality assurance.

Brief Biosketch

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