

Artificial Intelligence in *Cancer*

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Artificial Intelligence in Cancer

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ABOUT COVER

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AIMS AND SCOPE

The primary aim of *Artificial Intelligence in Cancer* (AIC, *Artif Intell Cancer*) is to provide scholars and readers from various fields of artificial intelligence in cancer with a platform to publish high-quality basic and clinical research articles and communicate their research findings online.

AIC mainly publishes articles reporting research results obtained in the field of artificial intelligence in cancer and covering a wide range of topics, including artificial intelligence in bone oncology, breast cancer, gastrointestinal cancer, genitourinary cancer, gynecological cancer, head and neck cancer, hematologic malignancy, lung cancer, lymphoma and myeloma, pediatric oncology, and urologic oncology.

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How is artificial intelligence applied in solid tumor imaging?

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Abstract

How is artificial intelligence (AI) applied in solid tumor imaging? What is the essential value of AI for tumor precision diagnosis and can it wholly replace the human beings? Some opinions in this letter should be considered.

Key Words: Artificial intelligence; Tumor; Imaging; Diagnosis

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Core Tip: Artificial intelligence has been widely applied in tumor diagnosis due to its precise recognition and big-data handling properties, which can relieve the clinicians from the diagnostic workloads. However, this model, to some extent, is rigid, and cannot completely replace the human beings eventually. How to promote and optimize it with real intelligence has a long way to go.

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TO THE EDITOR

We have read the review article by Shao *et al*[1], who described that artificial intelligence (AI) has greatly relieved clinical workloads and changed the current medical workflows, and summarized its application outlines and priorities compared with traditional tumor diagnostic methods through reviewing related advances in this area. This aim is proper, but the authors have not done it well.

Grade A (Excellent): 0
 Grade B (Very good): 0
 Grade C (Good): C
 Grade D (Fair): D
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This topic is of great interest, and needs to be further investigated for a long period of time in the future. However, the authors have not outlined and described it in a rational way. The obvious shortcomings of this review are described as follows:

Given that the authors aimed to discuss the application of AI in solid tumor imaging, they should have depicted all types of solid tumors as systematically as possible, in that the solid tumors present diverse characteristics in terms of their physical and chemical nature, which are the bases that AI works on. However, the authors have failed to provide readers with enough systematical information, and with a holistic vision of AI working on solid tumors.

A review article should not only describe the phenomena alone, but it should also discuss the potential mechanism. The common mechanisms of AI seem to be well-known, but there is a lack of description for interactive episode in this review.

Concise and precise graphs will inevitably improve the quality of the article, but the authors have not made use of these.

AI, sometimes, can resolve the difficulties that other advanced technologies or human beings could not do. Thus, in this review, the authors should have made great efforts to describe how AI processes images. Whether AI can recognize the diversity of the graphic grayscale, special molecules, or even some metal ions, and how it works? How does AI distinguish the tumor from the surrounding tissues? All of these principles and advancements should be clarified as detailed as possible.

Additionally, although the authors wanted to describe and summarize the advances and advantages of AI, they failed to provide more information systematically, but only listed amounts of dispersive works, without any graphs highlighting the AI characteristics.

REFERENCES

- 1 Shao Y, Zhang YX, Chen HH, Lu SS, Zhang SC, Zhang JX. Advances in the application of artificial intelligence in solid tumor imaging. *Artif Intell Cancer* 2021; 2: 12-24 [DOI: [10.35713/aic.v2.i2.12](https://doi.org/10.35713/aic.v2.i2.12)]



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