# Article information:

Current and future role of three-dimensional modelling technology in rectal cancer surgery: A systematic review  
<https://www.wjgnet.com/1948-9366/full/v13/i12/1754.htm>

# Article summary:

1. Rectal cancer surgery is complex due to the intricate anatomy of the pelvis, and effective multidisciplinary communication between radiologists, surgeons, and oncologists is crucial for diagnosis and management.

2. Three-dimensional (3D) modelling technology, both virtual and 3D printed, can provide a comprehensive understanding of the patient's individual anatomy and aid in creating precise surgical roadmaps, surgical education, and patient interaction.

3. While the use of 3D imaging in computed tomography colonography and CT angiography for cancer segmental colectomies has been reported, this systematic review aims to provide a comprehensive picture of the current role of 3D modelling technology in rectal cancer surgery and identify future directions for its application.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

作为一篇系统性综述，本文提供了关于三维建模技术在直肠癌手术中的应用现状和未来方向的概述。然而，在阅读文章时，我们也需要注意到以下几点：

1. 偏见来源：本文没有明确提及作者的利益冲突声明，这可能会引起读者对作者的偏见。此外，由于本文只收录了16篇研究，且大多数是小规模的可行性或试验性研究，并且主要来自亚洲和欧洲地区，因此可能存在地域和样本偏差。

2. 片面报道：虽然本文提到了三维建模技术在直肠癌手术中的许多优点，但它并没有探讨其局限性和缺陷。例如，在使用三维建模技术时需要考虑成本、时间、技能等因素，并且该技术仍处于发展初期，尚未得到广泛应用。

3. 无根据的主张：文章中提到“三维建模技术已被证明有益于手术护理各个方面”，但并没有给出具体证据支持这一观点。此外，在某些情况下，三维建模技术可能不如传统方法有效。

4. 缺失的考虑点：文章没有涉及与三维建模相关的风险和挑战。例如，在使用3D打印时需要考虑材料选择、精度等问题，并且可能存在潜在风险（如感染）。

5. 所提出主张的缺失证据：文章中提到“三维建模可以帮助识别患者个体解剖结构”，但并没有给出具体证据支持这一观点。此外，在实践中也存在误差和不确定性。

6. 未探索的反驳：文章没有探讨与三维建模相关的争议或反对意见。例如，有人认为该技术过于复杂、昂贵或不必要。

7. 宣传内容：文章似乎过分强调了三维建模技术在直肠癌手术中的优越性，并忽略了其他方法或策略。此外，它还暗示该技术已经成为标准实践，但事实上它仍处于发展初期。

总之，尽管本文提供了有价值的信息和见解，但我们需要保持批判思维并谨慎评估其内容。

# Topics for further research:

* Conflict of interest statement
* Limitations and drawbacks of 3D modeling technology
* Evidence supporting the benefits of 3D modeling
* Risks and challenges associated with 3D modeling
* Lack of evidence for certain claims about 3D modeling
* Controversies and opposing views on 3D modeling technology

# Report location:

<https://www.fullpicture.app/item/39fdf11a761f00a2f726556fb1767b89>