

Reviewer #1:

Scientific Quality: Grade A (Excellent)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (High priority)

Specific Comments to Authors: The manuscript is well designed and well written. It concentrates on a very specific problem and reveals promising results. It contains a detailed statistical analysis and the presentation of the data is quite good. I have only some minor concerns. 1. Core tip should emphasize the most important points of the study, not contain aim etc. 2. Discussion-conclusion: Conclusion section should be summarized to contain most emphasized results. It is too long in its current form.

1. Core tip should emphasize the most important points of the study, not contain aim etc.

We have included the core tip section as follows:

Radiation enteritis (RE) not only seriously affects the quality of life of patients, but it also leads to radiotherapy intolerance or termination of radiotherapy. However, there are insufficient data on the clinical efficacy and side effects of volumetric modulated arc therapy (VMAT) for cervical cancer. In this study, it was found that gastrointestinal and hematological toxicity of cervical cancer VMAT gradually increased with radiotherapy and reached the peak at the end of radiotherapy. The main adverse reactions were diarrhea, abdominal pain, colitis, anal swelling, and blood in the stool. Univariate and multivariate analyses revealed anal bulge rating and DAI score as independent predictors of SARE. The nomogram shows potential value in clinical practice.

2. Discussion-conclusion: Conclusion section should be summarized to contain most emphasized results. It is too long in its current form.

Thank you very much for your suggestion; the Discussion section has been revised following your recommendation.

Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade A (Priority publishing)

Conclusion: Minor revision

Specific Comments to Authors: I think that the manuscript is well written. I ask Authors to read my suggestions and to include a few important facts in the introductory part of the paper. I wrote in which direction to discuss. After that the paper could be accepted for publication. What are the new hypotheses that this study proposed? What are the new phenomena that were found through experiments in this study? What are the new findings of this study? What are the new concepts that this study proposes? What are the future directions of the topic described in this

manuscript?

What are the new hypotheses that this study proposed?

Intensity modulated radiotherapy (IMRT) is suitable for all clinical stages of cervical cancer, including postoperative adjuvant radiotherapy and radical radiotherapy. It can significantly reduce the toxicity of the digestive system and hematopoietic system without changing survival. However, data on the clinical efficacy and side effects of volumetric modulated arc therapy (VMAT) for cervical cancer are lacking. In this study, the severe acute radiation enteritis scoring system (SARE-SS) system was defined. By analyzing the data of clinical factors, cumulative incidence of SARE and dosimetric parameters of 50 patients with cervical cancer with VMAT, an attempt was made to establish and verify the prediction of the nomogram of SARE.

What are the new phenomena that were found through experiments in this study?

Gastrointestinal and hematological toxicity of cervical cancer VMAT gradually increased with radiotherapy and reached the peak at the end of radiotherapy. The main adverse reactions were diarrhea, abdominal pain, colitis, anal swelling, and blood in the stool. There was no significant difference in the incidence of gastrointestinal toxicity between the radical and postoperative adjuvant radiotherapy groups ($P > 0.05$). Univariate and multivariate analysis revealed anal bulge rating (OR: 14.779, 95% CI: 1.281–170.547, $P = 0.031$) and DAI score (OR: 53.928, 95% CI: 3.822–760.948, $P = 0.003$) as independent predictors of SARE.

What are the new findings of this study?

There are significant differences in the small intestine V_{20} , V_{30} , V_{40} and rectal V_{40} between adjuvant radiotherapy and radical radiotherapy after surgery. Anal bulge rating (>0.5 grade) and DAI score (>2.165 points) predict SARE. The nomogram shows potential value in clinical practice.

What are the new concepts that this study proposes?

In view of the similarities between RE and IBD, we innovatively used the IBD evaluation index-DAI score and confirmed that the DAI score can be used as a predictor of SARE through univariate and multivariate logistic regression analyses. From a diagnostic point of view, the diagnosis of RE is inseparable from the support of imaging such as CT, MRI, endoscopy, and pathological evidence; however, the high cost of treatment and the fragility of intestinal tissue caused by radiotherapy restrict the application of CT and MRI. Therefore, the DAI score is a relatively convenient, non-invasive, and relatively high-benefit diagnostic system.

Various scoring systems are available that can assess the severity of symptoms in patients receiving radiation therapy, such as the Acute Radiological Reaction Scoring Criteria (RTOG/EORTC) scoring system. However, no system can accurately assess the condition of RE. In this study, we established the SARE-SS evaluation system and found that the anal swelling rating and DAI score were independent predictors of SARE through statistical analysis.

What are the future directions of the topic described in this manuscript?

From the perspective of precision medicine, it will be necessary to combine biological factors, such as individual genomics, proteomics, metabolomics, microbiomics, real-time dosimetry, and a wider range of clinical parameters to establish comprehensive predictive models. This study is a prospective study with a small sample size. In the later stage, we will expand the sample size, conduct prospective cohort studies, and use external validation methods to reduce data selection bias and increase test efficiency.