

Analysis of 3D-printed vaginal cylinder template-guided interstitial adaptive brachytherapy for cervical cancer

摘要

探索个体化 3D 打印阴道柱插植近距离治疗 (individualized 3D-printed vaginal cylinder template-guided interstitial brachytherapy, 3D-p-VC-ISBT) 用于局部晚期宫颈癌近距离治疗的优势, 为临床自适应近距离放疗提供参考。分析中晚期宫颈癌患者的临床资料, 个体化 3D 打印阴道柱插植治疗。采用 Mann-Whitney 检验, Kruskal-Wallis 检验进行三种计划 (腔内计划、插植计划、插植组预计划) 数据的比较。个体化 3D 打印阴道柱插植近距离治疗的靶区剂量更优, 能根据肿瘤体积和位置变化自适应调整插植计划, 操作更安全、高效。

关键词

组织间插植近距离治疗, 自适应近距离治疗, 个体化 3D 打印阴道柱, 宫颈癌

Abstract

To explore the advantages of individualized 3D-printed vaginal cylinder template-guided interstitial brachytherapy (3D-p-VC-ISBT) in locally advanced cervical cancer, and to provide reference for clinical adaptive brachytherapy.

Clinical data of patients with advanced cervical cancer were analyzed, and individualized 3D-printed vaginal cylinder interstitial implantation therapy was adopted.

Mann-Whitney test and Kruskal-Wallis test were used to compare the data of three types of plans, including intracavitary plan, interstitial implantation plan, and pre-plan of the interstitial implantation group.

Individualized 3D-printed vaginal cylinder template-guided interstitial brachytherapy delivers superior target volume dose coverage. It enables adaptive adjustment of the interstitial implantation plan according to changes in tumor volume and location, with safer and more efficient clinical operation.

Keywords

interstitial brachytherapy, IGABT, 3D-printed individualized vaginal cylinder template, Cervical cancer

Author: Mr 曹, 鸿斌 (上海交通大学医学院附属仁济医院)

Presenter: Mr 曹, 鸿斌 (上海交通大学医学院附属仁济医院)

Session Classification: 海报展示

Track Classification: 海报展示: 海报展示