

论著

疗程中再计划对鼻咽癌螺旋断层放疗不良反应及临床疗效的影响

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摘要: 目的: 观察疗程中再计划对鼻咽癌螺旋断层放疗急性不良反应和临床疗效的影响。方法: 回顾性分析50例鼻咽癌螺旋断层放疗患者, 其中疗程中行再计划改野的患者25例为再计划组, 其年龄、性别、病理类型、联合治疗方式、国际抗癌联盟(UICC)分期、体质量下降程度作为配对标准选择同期未行再计划的鼻咽癌患者25例为对照组。采用Wilcoxon秩和检验比较两组患者急性及晚期放射损伤的发生情况。行Kaplan-Meier生存分析, 以Log-rank检验比较两组生存率。结果: 再计划组与对照组急性放射反应差异无统计学意义。放疗24个月后再计划组唾液腺损伤严重程度显著轻于对照组($P=0.046$), 但其他晚期放射损伤程度无显著差异。再计划组和对照组中位随访时间分别为32(7~42)个月和26(8~46)个月。无局部复发生存中位时间均为36个月, 2年无局部复发生存率均为92%, 2年无淋巴结复发生存率均为100%, 2年无远处转移生存率分别为80%和96% ($P>0.05$), 2年总生存率分别为88%和92% ($P>0.05$)。结论: 疗程中再计划可减轻鼻咽癌螺旋断层放疗后唾液腺晚期损伤的严重程度, 但对近期不良反应及生存状况无明显改善。

关键词: 鼻咽癌 螺旋断层放疗 再计划 放射损伤

Effect of adaptive replanning on adverse reactions and clinical outcome in nasopharyngeal carcinoma treated by helical tomotherapy

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Abstract: Objective: To observe the effect of adaptive replanning on adverse reactions and clinical outcome of nasopharyngeal carcinoma treated by helical tomotherapy.

Methods: Fifty nasopharyngeal carcinoma patients treated by TomoTherapy system were retrospectively analyzed. Among these patients, 25 received repetitive CT simulation and replanning, and another 25 case-matched control patients without replanning were identified by matching age, gender, pathological type, UICC stage, weight loss, etc. Wilcoxon test was used to evaluate the effect of replanning on acute and chronic radiation reactions within individuals. Kaplan-Meier study was used to estimate the survival of patients with or without replanning.

Results: There was a significant difference in late salivary gland damage between the replanning and the control group ($P=0.046$), while no difference was observed in acute or other late side effects between the two groups. The median follow-up of the two groups was 32 months (7-42 months) and 26 months (8-46 months), respectively. The median local relapse-free survival time, 2-year local relapse-free survival and 2-year lymphnode relapse-free survival in the two groups were similar (36 months, 92% and 100%). No significant difference was found in the 2-year metastasis relapsefree survival (80% and 96%) and the 2-year overall survival between the two groups (88% and 92%, $P>0.05$).

Conclusion: The expressions of HIF-1 α and VEGF increase in the kidney of rats with diabetic nephropathy, and the positive correlation suggests that there is chronic hypoxia in the renal tissue of diabetic nephropathy. Cordyceps sinensis may protect against chronic hypoxia injury in diabetic nephropathy by lowering the expressions of HIF-1 α and VEGF.

Keywords: nasopharyngeal carcinoma helical tomotherapy replanning radiation damage

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