不同分割放疗方式对糖尿病患者乳腺癌根治术后放射性肺炎发生的影响

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Title: **Effect of different fractionated radiotherapy modes on radiation pneumonitis after radical mastectomy in patients with diabetes mellitus**

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摘要: 目的：比较大分割放疗与常规分割放疗两种放疗模式对糖尿病患者乳腺癌术后放射性肺损伤发生的影响。方法:回顾性将2011年6月至2015年12月确诊为乳腺癌的术后患者共164例分为两组。常规分割放疗组99例：照射剂量为2 Gy/次，每周5次，总剂量50 Gy。大分割放疗组65例：照射剂量为2.656 Gy/次，每周5次，总剂量42.5 Gy。结果:大分割放疗组放射性肺炎发生率为30.77%，常规分割放疗组为46.46%，差异有统计学意义（P＜0.05）。放射性肺炎程度比较：1级放射性肺炎大分割放疗组17例，常规放疗组29例；2级放射性肺炎大分割放疗组3例，常规分割组15例；大分割组无3级及以上放射性肺炎发生，常规放疗组有2例发生3级放射性肺炎，两组比较差异有统计学意义（P＜0.05）。大分割放疗组放射性肺纤维化发生率15.38%，稍高于常规分割放疗组12.12%，差异无统计学意义（P＞0.05）。在发生放射性肺纤维化的患者中，两组均未发生3级及以上损伤，两组间比较差异无统计学意义（P＞0.05）。 结论:糖尿病患者乳腺癌术后大分割放疗未增加远期放射性肺纤维化的发生，而近期放射性肺炎的发生率和严重程度均较常规分割放疗组低。

Abstract: Objective:To compare the two radiotherapy modes of hypofractionated radiotherapy and conventional fractionated radiotherapy for radiation-induced lung injury in patients with breast cancer complicated with diabetes mellitus.Methods:With randomized and controlled method,the patients who diagnosed breast cancer were divided into hypofractionated radiotherapy group and conventional fractionated radiotherapy group.Conventional fractionated radiotherapy group(99 cases):2 Gy/times,5 times/week,and the total dose was 50 Gy.Hypofractionated radiotherapy group(65 cases)：2.656 Gy/times,5 times/week,and the total dose was 42.5 Gy.Results:The incidence of radiation pneumonitis was 30.77% in the hypofractionated radiotherapy group and 46.46% in the conventional fractionated radiotherapy group,and the difference was statistically significant (P＜0.05).In comparison of radiation pneumonitis degree,grade 1 radiation pneumonitis hypofractionated radiotherapy group had 17 cases,conventional radiotherapy group 29 cases.Grade 2 radiation pneumonitis hypofractionated radiotherapy group had 3 cases,conventional radiotherapy group 15 cases.In hypofractionated group,3 level and above radiation pneumonitis occurred in 0 patients,grade 3 radiation pneumonitis in conventional radiotherapy group in 2 patients.There was significant difference between two groups (P＜0.05).The incidence of radiation pulmonary fibrosis in the hypofractionated radiotherapy group was 15.38%,which was slightly higher than that in the conventional fractionated radiotherapy group (12.12%),and the difference was not statistically significant (P＞0.05).In the patients with radiation pulmonary fibrosis,there were no grade 3 or more injuries in the two groups,and there was no significant difference between the two groups (P＞0.05).Conclusion:Radiotherapy for breast cancer patients with diabetes did not increase the

incidence of long-term radiation-induced pulmonary fibrosis,while the incidence and severity of radiation pneumonitis were lower than those of conventional radiotherapy.Therefore,hypofractionated radiotherapy is superior to conventional fractionation radiotherapy for breast cancer patients with diabetes mellitus.

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