Observer the influence of three-dimensional conformal radiotherapy for the serum fibrosis markers, tumor markers, epidermal growth factor and its receptor of patients with nasopharyngeal carcinoma

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To observation the influence of three-dimensional conformal radiotherapy for the serum fibrosis markers, tumor markers, epidermal growth factor and its receptor of patients with nasopharyngeal carcinoma. Methods: 120 patients with nasopharyngeal carcinoma were randomly divided into control group and observation group, each group had 60 cases, all the patients were treated with conventional radiotherapy, patients in observation group were treated by three-dimensional conformal radiotherapy. Then the recent effect and the gross tumor volume (GTVnx) and cervical lymph node metastasis (GTVnd) of two groups were compared. And the serum levels of fibrosis markers such as hyaluronic acid (HA), laminin (LN), III procollagen (PCIII) and type IV collagen (IVC), and tumor markers such as macrophage inflammatory protein -3α (MIP-3α), carbohydrate antigen 125 (CA125) level and epidermal growth factor and its receptors (EGF, EGFR) of two groups before and after treatment were also compared. Results: The RR and CR of observation group were significantly higher than those in the control group, \( P < 0.05 \). After 4-8 weeks of radiotherapy, the GTVnx and GTVnd of observation group were significantly lower than those of control group, and the serum levels of HA, LN, PC III and IVC were obviously lower than those of control group, and the serum levels of MIP-3 alpha, CA125, EGF and EGFR were also significantly lower than those in the control group, all \( P < 0.05 \). Conclusion: Compared with conventional chemotherapy, three-dimensional conformal radiotherapy can relieve the injury to normal tissues, improve the tumor local control rate, so should as far as possible choice the three dimensional conformal radiotherapy for nasopharyngeal carcinoma as much as reasonably possible.

[KEY WORDS] nasopharyngeal carcinoma; three-dimensional conformal radiotherapy; fibrosis; tumor markers; epidermal growth factor