

A Study on the Effect of Detailed Respiratory Training on Breath Hold Treatment Decision of the Patient

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Purpose:

To establish a more accurate radiation treatment plan and treatment process during radiation therapy, the respiratory training method was specified to increase the adoption rate of breath-hold(BH) treatment. And it was statistically evaluated to what extent the adoption rate of the patient's breath-hold treatment was affected by the detailed respiratory education method.

Materials and Methods:

Mostly the cases of liver cancer patients who received stereotactic radiosurgery (SRS) treatment were stereotactically analyzed. After sufficient respiratory training, the adoption cases of BH were counted in 184 patients who determined whether BH was adaptable through respiratory measurements. It was confirmed that most of the patients learned and practiced BH training by themselves in advance by receiving a guide movie clip of how to breathe from a hospital before respiratory training, and it was confirmed that free-breathing was not considered during self-practice. The breathing training method was classified into two and the adoption results were statistically analyzed. One was that free breathing is entrusted to the patients themselves and only a guide on how to hold the breath is presented. Another was that all respiratory points from free-breathing to holding breath are trained concretely.

Results:

It resulted that the adoption rate of BH treatment of the patients increased by about 10%. It is judged that the adoption rate has increased by enhancing the understanding of BH through specific respiratory training. The effect of the detailed respiratory training did not appear significantly in the case of individual patient's physical pain or symptom associated with the lesion. When the patient understood the importance of free-breathing and free-breathing was sufficiently practiced, the time of breath-holding and adoption cases of BH breathing treatment increased.

Conclusions:

It was evaluated that the applicability of the BH treatment method increases when the patient understands the breathing method well through detailed and effective explanations and sufficient practice.

Keywords: Breath Hold Treatment, respiratory training, holding breath