

AbstractID: 13874 Title: A Database For Dose Tolerance Limits In Hypofractionated SBRT

Purpose

To build a database of online information in order to provide up-to-date dose tolerance limits for SBRT clinic and research.

Materials and Methods

A database of the dose tolerance limits in hypofractionated SBRT has been developed. Based on an extensive literature review and our clinic with Gamma Knife and CyberKnife, dose tolerance limits have been compiled. It included many anatomical structures covering both the head and the body, and is applicable to SBRT treatments in one to five fractionated sessions. Our proposal is to make the database available online, and to invite all SBRT clinicians to join the project. Various analysis tools will be incorporated with the database.

Result

More than 500 dose tolerance limits from various publications on hypofractionated SBRT have been collected. The numbers vary significantly from one reference to another. It may take many years (likely more than 10) before a consensus on the data can be reached. Hypofractionated SBRT is a rapidly growing treatment modality for cancers at advanced stages. Clinicians and researchers are always looking for the latest data in order to understand the biological results of hypofractionated SBRT.

Conclusion

A database of online information for the dose tolerance limits in hypofractionated SBRT can serve as a timely important and useful resource for clinical application and research. This information is needed for continuous development and validation of SBRT dose schemes.

Keyword

SBRT, dose tolerance limit, database