Összefoglaló referátum

A képvezérelt sugárterápia formái és alkalmazása

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Összefoglalás

A céltérfogat meghatározása a sugárterápia egyik legfontosabb fázisa. A kezelési céltérfogat berajzolásánál a sugárkezelés folyamán tapasztalható belső-szerv mozgás daganatra gyakorolt hatását és a napi beállítási hibát is figyelembe kell venni, így a modern háromdimenziós konformális sugárterápia alkalmazása során is felesleges sugárhatásnak kell kitennünk ép szöveteket. Ezen probléma orvoslására az elmúlt tíz évben az ún. képvezérelt sugárterápia jelentősen fejlődött és elterjedt a mindennapi klinikai gyakorlatban. Így lehetővé vált a céltérfogat meghatározásakor alkalmazott mozgási és beállítási biztonsági margók méretének csökkentése, és ezért az ép szövetek védelmének javítása. A gyakorlati megvalósítás számos különböző eszközzel, technológiával és technikával történhet. Jelen összefoglalóban ismertetjük a képvezérelt sugárterápia elméleti háttérét és gyakorlati kivitelezésének módszereit.

Kulcsszavak: biztonsági margó, képvezérelt sugárterápia, légzéskapuzás

Forms and application of image guided radiation theraphy

Summary

Determination of the planning target volume is one of the most important parts of radiation therapy. The effect of the internal organ motions to the tumour and the daily positioning error has also to be taken into consideration during the contouring of the treatment target volume, therefore, although modern, three-dimensional conformal radiation therapy is used, normal tissues also have to be exposed to undesired radiation. In the last decade so-called image guided radiation therapy rapidly developed and spread in the daily clinical routine. By shrinking the organ motion margin and positioned safety margin during the planning target volume determination the dose burden on organs-at-risks can be decreased. Practical realization can be done with different equipments, technologies and techniques. The theoretical basis and the methods of practical implementation are presented in this review.

Keywords: safety margin, image guided radiation therapy, respiratory gating

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