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Strategies to tackle the challenges of external beam radiotherapy for liver tumors

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#### Abstract

Primary and metastatic liver cancer is an increasingly common and difficult to control disease entity. Radiation offers a non-invasive treatment alternative for these patients who often have few options and a poor prognosis. However, the anatomy and aggressiveness of liver cancer poses significant challenges such as accurate localization at simulation and treatment, management of motion and appropriate selection of dose

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## Liver Cancer: Radiation Therapy - University of Utah Health Care

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To plan your entire treatment strategy, talk with a team of cancer specialists. ... You can get radiation therapy for liver cancer in 2 main ways. ... The machine gives off invisible beams (X-rays) or other types of radiation. ... A doctor who specializes in giving external radiation to treat cancer is called a radiation oncologist.

## Radiation therapy for hepatocellular carcinoma: current status and ...

[link.springer.com/article/10.1007/s12156-009-0025-4](http://link.springer.com/article/10.1007/s12156-009-0025-4) - 翻译此页

作者: W Jiang - 2009 - 被引用次数: 2 - 相关文章

Radiation therapy Hepatocellular carcinoma Current status Perspectives ... TACE combined with external beam radiotherapy (EBRT) holds promise for overcoming this ... of the adrenal gland present anatomical and technical challenges. A recent .... Two strategies have emerged to deal with the problem of respiratory motion.

## External-beam radiotherapy in the management of liver metastases.

[www.ncbi.nlm.nih.gov/pubmed/11951218](http://www.ncbi.nlm.nih.gov/pubmed/11951218) ▾ 翻译此页

作者: U Malik - 2002 - 被引用次数: 13 - 相关文章

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GS Mageras, E Yorke - *Seminars in radiation oncology*, 2004 - Elsevier

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... This article examines 2 such **strategies**: the use of controlled patient breathing, specifically ... and (3) our treatment planning dose calculation algorithm does not **handle** lateral disequilibrium ... see serious irregularity or drift, and contact a designated physicist for persistent **problems**. ...

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Issues in respiratory motion compensation during **external-beam radiotherapy**

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C Ozhasoglu, MJ Murphy - *International Journal of Radiation Oncology\** ..., 2002 - Elsevier

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... Both the respiratory gating and real-time tracking **strategies** require some way to observe ... a close spatial and temporal relationship between the **tumor's** motion and the **external** breathing signal ...

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A successful **beam** gating or tracking system must be able to **handle** the complexities ...

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A **challenge** to traditional **radiation** oncology

JF Fowler, WA Tomé, JD Fenwick, MP Mehta - ... *Journal of Radiation* ..., 2004 - Elsevier

... These **strategies** are a new step toward what has always been the main, **challenging**, aim of **radiotherapy**—high dose in **tumor**, low dose ... 6, 7, 8, 9, 10, 11, 12 and 13) are due to each of the seven distinctive components of this new **strategy**: whether small ... Modeling the **challenge**. ...

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Image-guided **radiotherapy** for cervix **cancer**: high-tech **external beam** therapy versus high-tech brachytherapy

D Georg, C Kirsits, M Hillbrand, J Dimopoulos... - ... *Journal of Radiation* ..., 2008 - Elsevier

... finding that an inhomogeneous dose prescription is more difficult to **tackle** with inverse ... generation treatment-planning systems, however, is their inability to **deal with** composite treatment ... Designing and evaluating combined-modality treatments remains a **challenge**, and further ...

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## Role of External Beam Radiation Therapy in Management of ... - NCBI

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作者: H Sharma - 2014 - 被引用次数: 10 - 相关文章

2014年7月19日 - Interest in radiotherapy for hepatocellular carcinoma has seen a resurgence with ... liver disease in these patients continues to remain a challenge. ... a potentially ablative radiation strategy of high-dose radiation given in five ...

缺少字词: tackle

## Motion management in gastrointestinal cancers

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作者: H Abbas - 2014 - 被引用次数: 9 - 相关文章

2014年5月26日 - A number of strategies have been developed to deal with tumor and organ ... for gastrointestinal cancers, one must deal with the second challenge ... (17) measured liver tumor motion in all three directions with MRI and .... A Japanese group representing the Japan Conformal External Beam Radiotherapy ...

## External beam radiation therapy for hepatocellular carcinoma - NCBI

<https://www.ncbi.nlm.nih.gov/pubmed/15508086> - 翻译此页

作者: M Fuss - 2004 - 被引用次数: 71 - 相关文章

Although there is evidence for tumor response to external beam radiotherapy and ... normal liver has