

Name of Journal: *World Journal of Radiology*

Manuscript NO: 55036

Manuscript Type: MINIREVIEW

Adaptive Radiation Therapy of breast cancer by repeated imaging during irradiation

Sager O *et al.* Adaptive radiation therapy for breast cancer

Omer Sager, Ferrat Dincoglan, Selcuk Demiral, Bora Uysal, Hakan Gamsiz, Fatih Ozcan, Onurhan Colak, Yelda Elcim, Esin Gundem, Bahar Dirican, Murat Beyzadeoglu

Abstract

Breast cancer is the most frequent cancer among females and also a leading cause of cancer related mortality worldwide. A multimodality treatment approach may be utilized for optimal management of patients with combinations of surgery, radiation

Match Overview

Match Number	Source	Words	Similarity
1	Crossref	44 words Xiaojian Chen, Qiao Qiao, Anthony DeVries, Wenhui Li, Adam Currey, Tracy Kelly, Carmen Bergom, J. Frank Wilson, X.	3%
2	Internet	38 words www.ncbi.nlm.nih.gov	2%
3	Crossref	25 words Nieves G. Rdguez-Ibarria, Ma Beatriz Pinar, Laura Garcia, M.Auxiliadora Cabezon et al. "Accelerated partial breast irra	1%
4	Crossref	24 words "Oncologic Critical Care", Springer Science and Business Media LLC, 2020	1%
5	Crossref	22 words Omer Sager, Murat Beyzadeoglu, Ferrat Dincoglan, Hakan Gamsiz et al. "Evaluation of Linear Accelerator-based Ster	1%
6	Internet	9 words crawled on 28-Jan-2020 koreamed.org	1%
7	Crossref	8 words Claire Lemanski, David Azria, Simon Thezenas, Marian Gutowski et al. "Intraoperative radiotherapy given as a boost for	<1%
8	Crossref	7 words Ferrat Dincoglan, Omer Sager, Seluck Demiral, Murat Beyzadeoglu. "Multimodality Imaging for Radiosurgical Managen...	<1%

Adaptive Radiation Therapy (ART) of the intact breast by



13,100 Results

Any time ▾

[Phase I trial of stereotactic MR-guided online adaptive ...](#)

<https://www.sciencedirect.com/science/article/pii/S0167814017327615>

Phase I trial of stereotactic MR-guided online adaptive radiation therapy (SMART) for the treatment of oligometastatic or unresectable primary malignancies of the abdomen Author links open overlay panel
Lauren Henke a Rojano Kashani a Clifford Robinson a Austen Curcuru a Todd DeWees a Jeffrey Bradley
a Olga Green a Jeff Michalski a Sasa Mutic a ...

Cited by: 78

Author: Lauren Henke, Rojano Kashani, Clifford R...

Publish Year: 2017

[Adaptive Radiotherapy: Merging Principle Into Clinical ...](#)

<https://www.researchgate.net/publication/41894270...>

The objective of this work is to provide a state-of-the-art review of computer-aided methods developed for adaptive treatment planning and radiation therapy planning for cervical cancer radiation ...

[Evaluation of adaptive radiotherapy \(ART\) by use of ...](#)

<https://www.researchgate.net/publication/324257907...>

Evaluation of adaptive radiotherapy (ART) by use of replanning the tumor bed boost with repeated computed tomography (CT) simulation after whole breast irradiation (WBI) for breast cancer patients ...

[Magnetic Resonance Imaging-Guided Adaptive Radiation ...](#)



26,700 Results Any time ▾

Adaptive radiation therapy for breast IMRT-simultaneously ...

<https://www.sciencedirect.com/science/article/pii/S0167814011007547>

Purpose. It has been shown that seroma volumes decrease during breast conserving radiotherapy in a significant percentage of patients. We report on our experience with an adaptive radiation therapy (ART) strategy involving rescanning and replanning patients to take this reduction into account during a course of intensity-modulated radiation therapy with simultaneously integrated boost (IMRT-SIB).

Cited by: 18 Author: Coen W. Hurkmans, Ingrid Dijkmans, Mira...
Publish Year: 2012

Imaging radiation dose in breast radiotherapy by X-ray CT ...

<https://www.nature.com/articles/s41467-020-16031-z>

Imaging Cherenkov emission during radiation therapy cancer treatments can provide a real-time, non-contact sampling of the entire dose field. The emitted Cherenkov signal generated is proportional ...

A Survivin-Associated Adaptive Response in Radiation Therapy

<https://cancerres.aacrjournals.org/content/73/14/4418>

Jul 15, 2013 · Adaptive responses can be induced in cells by very low doses of ionizing radiation resulting in an enhanced resistance to much larger exposures. The inhibitor of apoptosis protein, survivin, has been implicated in many adaptive responses to cellular stress. Computerized axial tomography used in image-guided radiotherapy to position and monitor tumor response uses very low radiation doses ...

Cited by: 28 Author: David J. Grdina, Jeffrey S. Murley, Richard ...
Publish Year: 2013

Magnetic Resonance Image Guided Radiation Therapy for ...

<https://www.sciencedirect.com/science/article/pii/S0360301616330656>

For early-stage breast cancer, breast conservation therapy has been established as an effective alternative to mastectomy for more than 2 decades (1). Whole-breast irradiation is a component of breast conservation therapy and can entail 5 to 6 weeks of daily treatments.

Cited by: 22 Author: Sahaja Acharya, Benjamin W. Fischer-Valuc...
Publish Year: 2016

Seroma change during magnetic resonance imaging-guided ...

<https://ro-journal.biomedcentral.com/articles/10.1186/s13014-017-0843-7>

Jun 20, 2017 · Based on the spatial pattern of recurrence, partial breast irradiation (PBI) can be introduced as an alternative to conventional whole-breast irradiation followed by boost in selected patients with early breast cancer, aiming for a short treatment time and reduced toxicity.

Cited by: 4 Author: Seung Hyuck Jeon, Seung Hyuck Jeon, Kyu...
Publish Year: 2017

PEOPLE ALSO ASK

- Can radiation therapy be done before or after cancer? ▾
- How is radiation therapy used to treat bone cancer? ▾
- How do radiation and chemotherapy affect cancer cells? ▾
- What is radiation therapy after surgery called? ▾

Feedback

Radiotherapy, including internal mammary nodal irradiation ...

<https://www.appliedradiationoncology.com/articles/...>

The impact of radiation therapy (RT), including internal mammary nodal (IMN) RT on cardiac function in patients receiving concurrent treatment with trastuzumab, was studied. Patients and Methods: Thirty-seven patients with stage I–III human epidermal growth factor-2 (HER2)–positive breast cancer treated with trastuzumab with or without ...

Magnetic Resonance-Guided Hypofractionated Adaptive ...

<https://www.cancer.gov/about-cancer/treatment/...>

Magnetic resonance-guided adaptive radiation therapy uses a machine that contains both the device that delivers the radiation and a magnetic resonance imaging scanner. This allows the treatment team to adjust or re-plan treatment during the course of treatment. Hypofractionated radiation therapy delivers higher doses of radiation therapy over a shorter period of time and may kill more tumor cells and have ...

Computed Tomography Number Changes Observed During ...

<https://www.sciencedirect.com/science/article/pii/S0360301614045714>

Image guided intensity modulated radiation therapy (IMRT) is the standard treatment for head and neck cancer (HNC). A variety of image-guided technologies have been used to account for interfractional variations, including setup uncertainty and anatomic changes.

Cited by: 15 Author: Mei Feng, Cungeng Yang, Xiaojian Chen, Sh...
Publish Year: 2015

Adaptive radiation therapy for head and neck cancer

<https://appliedradiationoncology.com/articles/...>

< Why Is Art Necessary? Dosimetric Benefits of Art Clinical Experience >

Head and neck radiation therapy provides a unique challenge intreatment delivery due to significant anatomic changes related to tumorresponse and weight loss that can occur during the course of treatment. With expected anatomical changes of both tumor and normal tissue during a 5- to 7-week course of radiation, relying solely on computed tomography(CT) images acquired before therapy could lead to (1) underdosing of the tumor and/or (2) unnecessary exposure of organs at risk (OARs) to higher ...

See more on appliedradiationoncology.com

Radiation Therapy for Cancer - National Cancer Institute

<https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy>

Brachytherapy is most often used to treat cancers of the head and neck, breast, cervix, prostate, and eye. A systemic radiation therapy called radioactive iodine, or I-131, is most often used to treat certain types of thyroid cancer. Another type of systemic radiation therapy...



Support nonprofits responding to COVID-19 when you search on Bing

MAYBE LATER YES

Search Tools

Turn off Hover Translation (关闭取词)



26,800 Results

Any time ▾

[Imaging radiation dose in breast radiotherapy by X-ray CT ...](#)

<https://www.nature.com/articles/s41467-020-16031-z>

Imaging Cherenkov emission **during radiation therapy cancer** treatments can provide a real-time, non-contact sampling of the entire dose field. The emitted Cherenkov signal generated is proportional ...

[Adaptive radiation therapy for breast IMRT-simultaneously ...](#)

<https://www.sciencedirect.com/science/article/pii/S0167814011007547>

Purpose. It has been shown that seroma volumes decrease **during breast** conserving radiotherapy in a significant percentage of patients. We report on our experience with an **adaptive radiation therapy** (ART) strategy involving rescanning and replanning patients to take this reduction into account **during** a course of intensity-modulated **radiation therapy** with simultaneously integrated boost (IMRT-SIB).

Cited by: 18**Author:** Coen W. Hurkmans, Ingrid Dijckmans, Mi...**Publish Year:** 2012

[Adaptive Radiotherapy - an overview | ScienceDirect Topics](#)

<https://www.sciencedirect.com/topics/medicine-and-dentistry/adaptive-radiotherapy>

John P. Gleysteen, ... Daniel R. Clayburgh, in Oral, Head and Neck Oncology and Reconstructive Surgery, 2018. **Adaptive** Radiotherapy. **Adaptive** radiotherapy (ART) for head and neck **cancer** is an emerging tool to counter morphologic changes in patient and tumor anatomy **during** a course of radiotherapy by creating new **radiation** plans **during** the course of **treatment**.

[Radiotherapy, including internal mammary nodal irradiation ...](#)

<https://www.appliedradiationoncology.com/articles/...>

The impact of **radiation therapy** (RT), including internal mammary nodal (IMN) RT on cardiac function in patients receiving concurrent **treatment** with trastuzumab, was studied. Patients and Methods: Thirty-seven patients with stage I–III human epidermal growth factor-2 (HER2)–positive **breast cancer** treated with trastuzumab with or without ...

[A Survivin-Associated Adaptive Response in Radiation Therapy](#)

Radiation Therapy

Treatment for cancer involving radioactive energy to destroy the cancer cells and their division.

Type of procedure: Noninvasive**Recovery time:** Can take several days**Duration:** Few minutes**Hospital stay:** Not typically needed

May treat

Cancer

Common

Cancer is a group of diseases involving abnormal cell growth ...

[Read more](#)

What to expect before procedure

- Before the treatment, tests like CT Scan, MRI and X rays are done.
- For immobilization, devices like headrests, tapes, sponges and casts can be used.
- Simulation is done before the treatment for patient awareness.
- This treatment requires multiple sessions and the appointments should be made according to availability.

What to expect during procedure