

Match Overview



There are no matching sources for this report.

Name of Journal: *Artificial Intelligence in Medical Imaging*

Manuscript NO: 68394

Manuscript Type: MINIREVIEWS

Current status of deep learning in abdominal image reconstruction

Li GY *et al.* Deep learning in abdominal image reconstruction

Guang-Yuan Li, Jun Lv, Cheng-Yan Wang

Abstract

Abdominal magnetic resonance imaging (MRI) and computer tomography (CT) are





ALL

IMAGES

VIDEOS

3,490,000 Results

Any time ▼

Deep-learning-based image reconstruction in dynamic ...

<https://pubmed.ncbi.nlm.nih.gov/33879322>

Aim: To evaluate the use of **deep-learning**-based **image reconstruction** (DLIR) algorithms in dynamic contrast-enhanced computed tomography (CT) of the abdomen, and to compare the **image** quality and lesion conspicuity among the **reconstruction** strength levels. Materials and methods: This prospective study included 59 patients with 373 hepatic lesions who underwent dynamic contrast-enhanced CT of ...

A study of using a deep learning image reconstruction to ...

<https://pubmed.ncbi.nlm.nih.gov/33242256>

Objective: To investigate the feasibility of using **deep learning image reconstruction** (DLIR) to significantly reduce radiation dose and improve **image** quality in contrast-enhanced **abdominal** CT. Methods: This was a prospective study. 40 patients with hepatic lesions underwent **abdominal** CT using routine dose (120kV, noise index (NI) setting of 11 with automatic tube **current** modulation) in the ...

Sinogram-based deep learning image reconstruction ...

<https://link.springer.com/article/10.1007/s00330-021-07952-4> ▼

Apr 23, 2021 · To investigate the **image** quality and perception of a sinogram-based **deep learning image reconstruction** (DLIR) algorithm for single-energy **abdominal** CT compared to standard-of-care strength of ASIR-V. In this retrospective study, 50 patients (62% F; 56.74 ± 17.05 years) underwent portal venous phase. Four reconstructions (ASIR-V at 40%, and DLIR at three strengths: low (DLIR-L), medium (DLIR ...

Image Quality and Lesion Detection on Deep Learning ...

<https://www.ajronline.org/doi/10.2214/AJR.19.21809>

Recently, **deep learning**-based **reconstruction** (DLR) methods using **deep** convolutional neural networks (DCNNs) have been proposed to enable dose reduction while maintaining the diagnostic performance of



ALL

IMAGES

VIDEOS

218,000 Results

Any time ▼

A study of using a deep learning image reconstruction to ...

<https://pubmed.ncbi.nlm.nih.gov/33242256>

Objective: To investigate the feasibility of using **deep learning image reconstruction** (DLIR) to significantly reduce radiation dose and improve **image** quality in contrast-enhanced **abdominal** CT. Methods: This was a prospective study. 40 patients with hepatic lesions underwent **abdominal** CT using routine dose (120kV, noise index (NI) setting of 11 with automatic tube **current** modulation) in the ...

Cited by: 5**Author:** Le Cao, Xiang Liu, Jianying Li, Tingting Qu, ...**Publish Year:** 2021

Deep Learning-based CT Image Reconstruction: Initial ...

<https://pubs.rsna.org/doi/full/10.1148/ryai.2019180011>

Introduction

Materials and Methods

Results

Discussion



Metastatic lesions are more common than primary tumors of the liver (1–3). As surgical resection has **decreased the mortality rate** and **improved** the prognosis of patients with hepatic metastases from colorectal cancer, the number of lesions and their size and location are assessed on images (4). CT studies that evaluate the liver, abdomen, and chest simultaneously in a single session are the primary modality for conducting follow-up examinations and for determining the disease stage. However, as th...

[See more on pubs.rsna.org](https://pubs.rsna.org)**Cited by:** 13**Author:** Yuko Nakamura, Toru Higaki, Fuminari Tats...**Publish Year:** 2019

All Images Videos

211,000 Results Any time ▾

Deep learning-based image reconstruction and motion ...

<https://pubmed.ncbi.nlm.nih.gov/32408295>

The motion estimate is used to adapt the radiation beam to the **current** anatomy, yielding a more conformal dose distribution. As the MR acquisition is the largest component of latency, **deep learning** (DL) may reduce the total latency by enabling much higher undersampling factors compared to conventional **reconstruction** and motion estimation methods.

Cited by: 6

Author: Maarten Lennart Terpstra, Matteo Maspero...

Publish Year: 2020

A feasibility study of realizing low-dose abdominal CT ...

<https://pubmed.ncbi.nlm.nih.gov/33612538>

Objectives: To explore the feasibility of achieving diagnostic **images** in low-dose **abdominal** CT using a **Deep Learning Image Reconstruction** (DLIR) algorithm. Methods: Prospectively enrolled 47 patients requiring contrast-enhanced **abdominal** CT scans. The late-arterial phase scan was added and acquired using lower-dose mode (tube **current** range, 175-545 mA; 80 kVp for patients with BMI ≤ 24 kg/m² ...

Deep Learning-based CT Image Reconstruction: Initial ...

<https://pubs.rsna.org/doi/full/10.1148/ryai.2019180011>

< Introduction Materials and Methods Results Discussion >

Metastatic lesions are more common than primary tumors of the liver (1–3). As surgical resection has **decreased the mortality rate** and **improved** the prognosis of patients with hepatic metastases from colorectal cancer, the number of lesions and their size and location are assessed on images (4). CT studies that evaluate the liver, abdomen, and chest simultaneously in a single session are the primary modality for conducting follow-up examinations and for determining the disease stage. However, as th...

See more on pubs.rsna.org

Cited by: 13

Author: Yuko Nakamura, Toru Higaki, Fuminari Tats...

Publish Year: 2019

Deep learning image reconstruction for improvement of ...

<https://link.springer.com/article/10.1007/s11604-021-01089-6> ▾

Jan 15, 2021 · Purpose To evaluate the usefulness of the **deep learning image reconstruction** (DLIR) to enhance the **image** quality of **abdominal** CT, compared to iterative **reconstruction** technique. Method Pre and post-contrast **abdominal** CT **images** in 50 patients were reconstructed with 2 different algorithms: hybrid iterative **reconstruction** (hybrid IR: ASiR-V 50%) and DLIR (TrueFidelity). Standard deviation of ...

Cited by: 3

Author: Yasutaka Ichikawa, Yoshinori Kanii, Akio Ya...

Publish Year: 2021

Estimated Reading Time: 10 mins

See results for

CT Scan (Medical Imaging)

Normal results are when no abnormalities are found.li>
Abnormalities reported may include presence of tumors, fr...

Search Tools

Turn off Hover Translation (关闭取词)