



### A new technique for the 3D reconstruction of the ...

<https://www.sciencedirect.com/science/article/pii/S0899707120301935>

The 3D reconstruction technique made automated segmentation of the **bony skeleton, skin, outer abdominal wall, vessel**, and hernia sac. The **hernia sac, abdominal muscles**, and their anatomic relationship were clearly illustrated in 3D reconstruction images.

**Author:** Qi Zhang, Xiaojian Fu, Kai He, Hao C... **Publish Year:** 2020

### [PDF] Significance of measurements of herniary area and volume ...

<https://www.tandfonline.com/doi/pdf/10.3109/10929088.2011.636453>

concerning the **application of CT 3D reconstruction (3D-CT)** in the **repair** of abdominal wall **hernias**, including obturator **hernias**, slipped **hernias**, intermuscular **hernias** and **hiatal hernias** [3–7]. These papers reported that **CT 3D reconstruction** could identify abdominal **wall defects** and **hernia** contents more clearly compared with plain **CT** scans, and that diagnosis of **hernia** was easy **based** on **3D-CT**.

### Chest wall reconstruction after resection using hernia ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886030>

The patient underwent a **tumor radical resection and chest wall reconstruction with hernia repair pieces**, and the postoperative pathology confirmed the chondrosarcoma. There are no postoperative complications such as paradoxical respire after the **surgery** and during our follow-up; furthermore, the patient has maintained good health since the **surgery**.

**Cited by:** 3 **Author:** Yimin Wu, Guofei Zhang, Zhouyu Zhu, ...

**Publish Year:** 2016

### Classification of Hiatal Hernias Using Dynamic Three ...

<https://journals.sagepub.com/doi/abs/10.1177/155335060601300108>

Mar 01, 2006 · We have **applied** polygonal **mesh surface modeling techniques** to render dynamic three-dimensional **computed tomography-based models** of the four recognized types of **hiatal hernias**. The resultina imaaces **allow** nearly real-time navigation in ...



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Method. This was a pilot study using a new technique, 3D reconstruction, based on computed tomography (CT) scans to measure abdominal wall defect, herniary area, herniary volume, abdominal cavity volume, and the volume of transverse, oblique, and recti abdominis in three patients with incisional hernias. Results.

Author: Qi Zhang, Xiaojian Fu, Kai He, Hao Chen... Publish Year: 2020

### Computed Tomography Imaging in Ventral Hernia Repair: Can ...

<https://pubmed.ncbi.nlm.nih.gov/32277369>

Introduction: Currently, the need for additional myofascial release (AMR) in addition to retromuscular dissection during open Rives-Stoppa hernia repair is determined intraoperatively based on the discretion of the surgeon. We developed a novel method to objectively predict the need for AMR preoperatively using computed tomography (CT)-measured rectus width to hernia width ratio (RDR).

Cited by: 1 Author: M W Love, J A Warren, S Davis, J A Ewing, ...  
Publish Year: 2020

### Three-dimensional reconstructed computed tomography ...

<https://pubmed.ncbi.nlm.nih.gov/21613771>

None of the 19 patients treated based on our 3D reconstruction method has had neurological complications, except for CSF leakage. This 3D reconstructed imaging method, combined with Image Overlay, improves the visual understanding of complicated surgical situations, and should improve surgical efficiency and outcome.

Cited by: 10 Author: Yohei Bamba, Masahiro Nonaka, Shin Naka...  
Publish Year: 2011

### [PDF] Significance of measurements of herniary area and volume ...

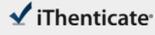
<https://www.tandfonline.com/doi/pdf/10.3109/10929088.2011.636453>

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### Computed tomography based 3D printed patient specific ...

<https://www.sciencedirect.com/science/article/pii/S0976566218302832>

Jul 01, 2018 · 3D printing is an emerging technology and its use in orthopaedics is being explored. We discuss the role of computed tomography based 3D printed patient specific models in total knee



**Name of Journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 58455

**Manuscript Type:** ORIGINAL ARTICLE

*Retrospective Study*

**Application of computer tomography-based 3D reconstruction technique in hernia repair surgery**

Feng Wang, Xiao-Feng Yang

**Abstract**

**BACKGROUND**

Hernia is a common condition requiring abdominal surgery. The current standard treatment for hernia is "tension-free repair" using meshes. Globally, more than 200 new types of meshes are licensed each year. However, their clinical applications are related to a series of complications such as recurrence (10% to 24%) and infection (0.5% to

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### Quantitative CT Imaging of Ventral Hernias: Preliminary ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4624799>

Significance of measurements of **herniary area** and volume and abdominal cavity volume in the treatment of **incisional hernia: Application of CT 3D reconstruction** in 17 cases. **Computer Aided Surgery**. 2012; 17 (1):40–5. doi: 10.3109/10929088.2011.636453

**Cited by:** 4

**Author:** Zhoubing Xu, Andrew J. Asman, Rebec...

**Publish Year:** 2015

### [PDF] Significance of measurements of herniary area and volume ...

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