

**PACS, DICOM...
ve výuce...
ve 3. tisíciletí...**

**Daniel Zoubek, M.D.
University hospital Motol**



DICOM - Digital Imaging and Communications in Medicine

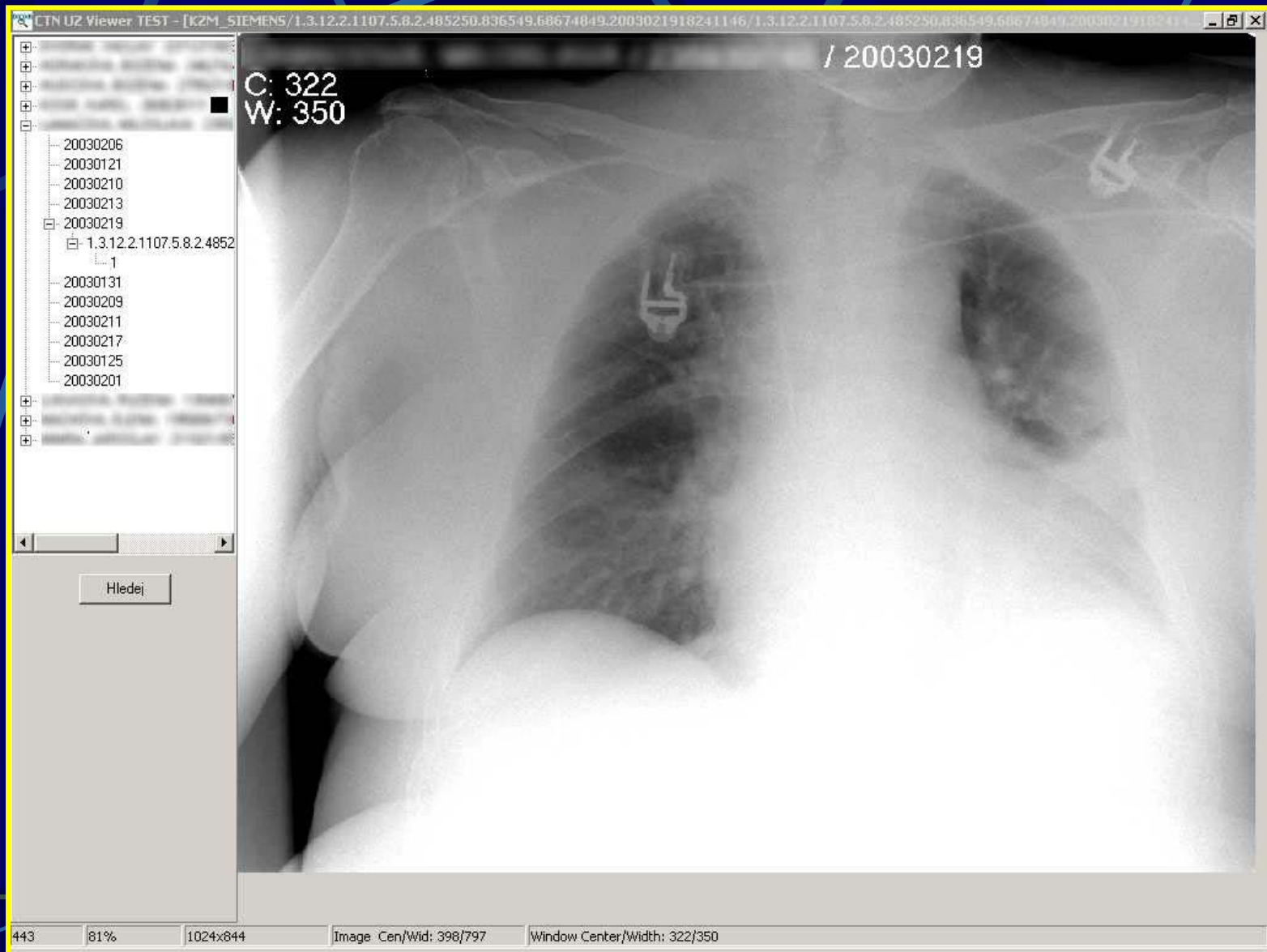
DICOM is standard developed by American College of Radiology (**ACR**) and National Electrical Manufacturers Association (**NEMA**).

- 1985 - ACR-NEMA v1.0
- 1988 - ACR-NEMA v2.0
- 1993 – DICOM v3,0

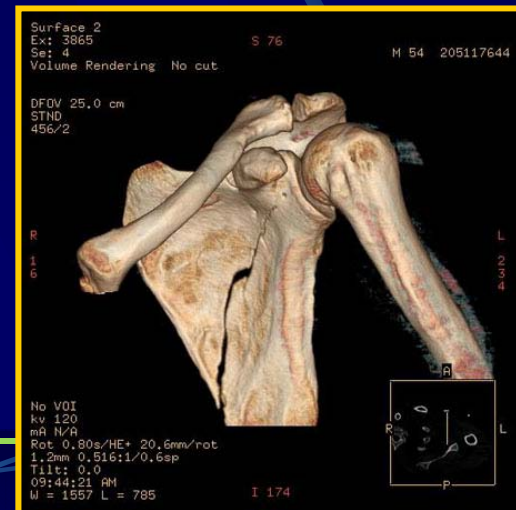
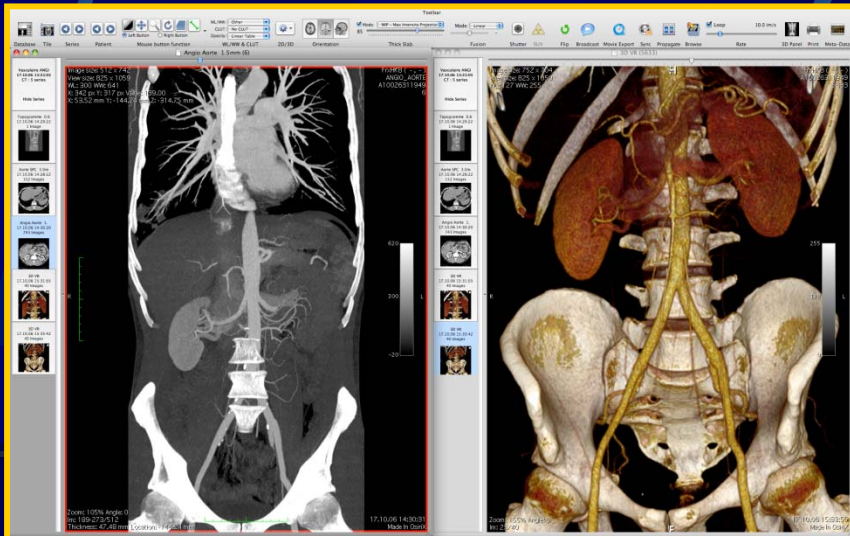
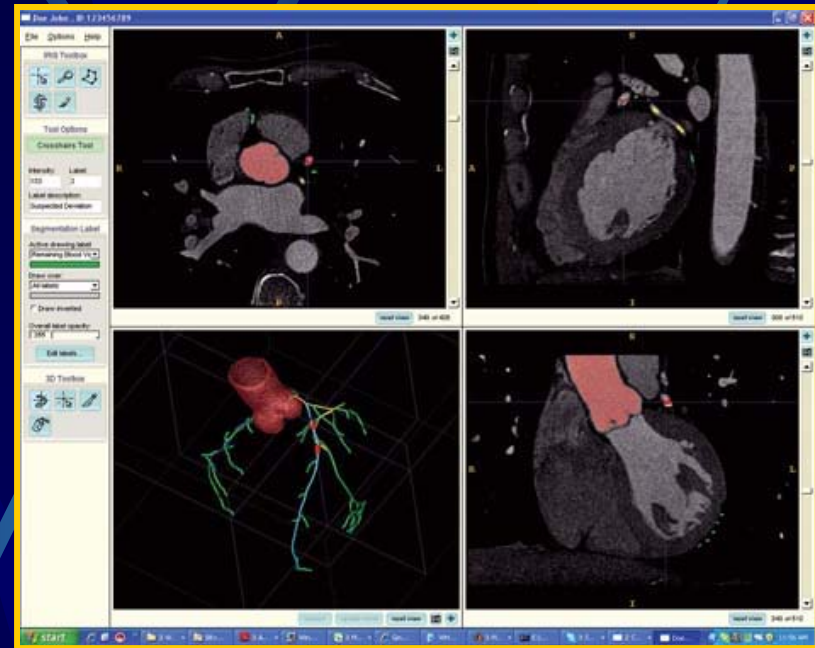
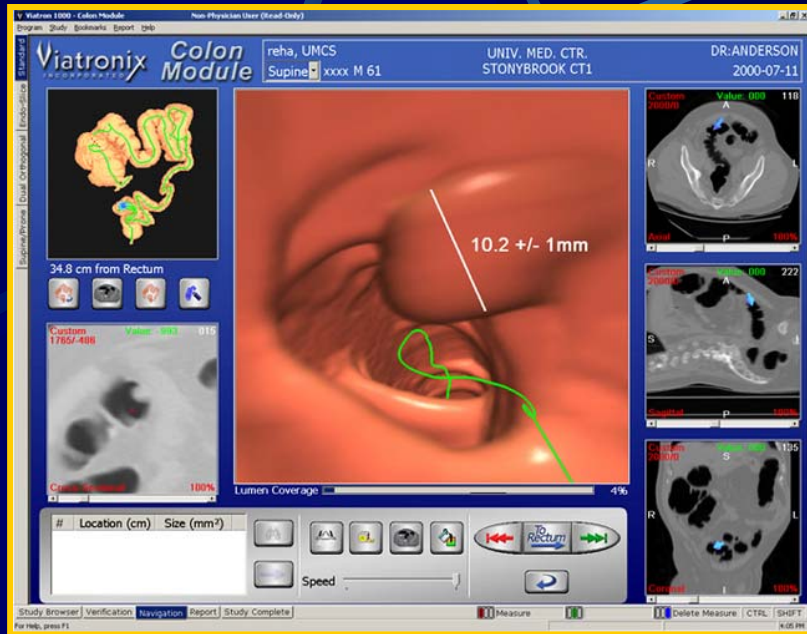
NEMA - National Electrical Manufacturers Association

ACR - American College of Radiology

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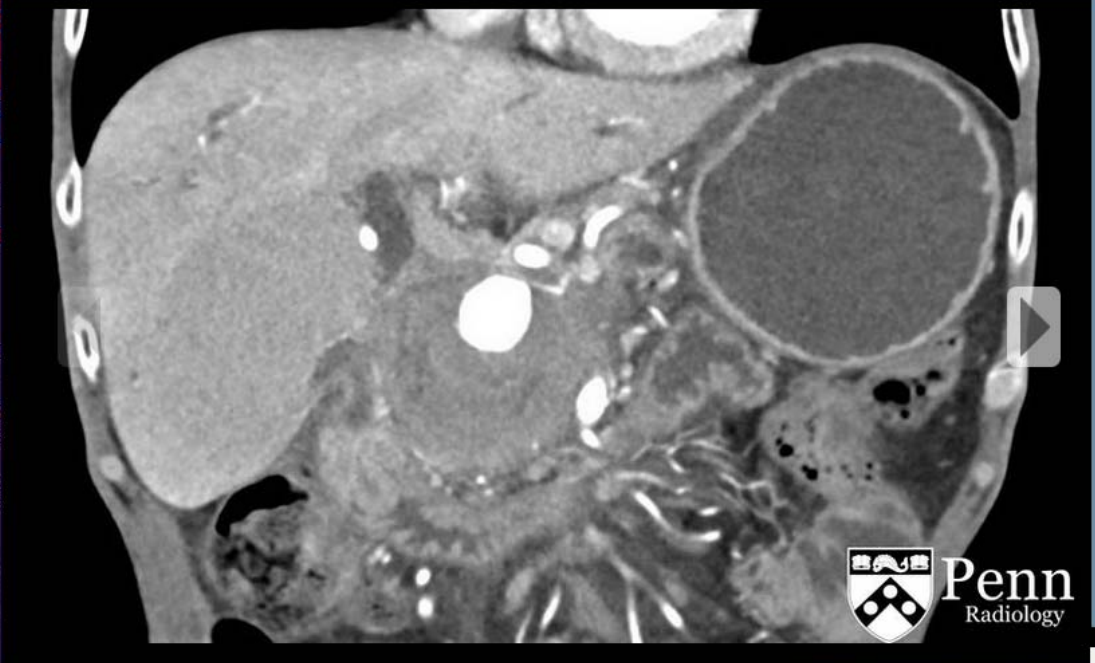
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EDUCATION ON DEMAND

1/11: Abdominal Imaging

Case 14189

Gastric schwannoma mimicking GIST

Author(s) Robert Vollmann¹, Jessica Vollmann², Tobias Frankl², Hans-Peter Sochor³

¹Hospital Hollabrunn; Department of Radiology, Robert-Löffler Straße 20, 2020 Hollabrunn, Austria; Email:robertvollmann@aol.de

²Hospital Hollabrunn; Department of Surgery, Robert-Löffler Straße 20, 2020 Hollabrunn, Austria;

³Diagnosticum Gersthof, Gesthofers Straße 16, 1180 Wien

Patient female, 41 year(s)

CLINICAL HISTORY

A 41-year-old woman was transferred to the surgical department due to epigastric discomfort. There was no medical history concerning malignant diseases. Esophagogastroduodenoscopy (EGD) was performed and revealed a submucosal tumor (Fig. 1). For further diagnostics computer tomography (CT) was recommended.

IMAGING FINDINGS

Contrast enhanced CT detected a homogeneous exophytic mass measuring 3.7cm at the lesser curvature of the gastric body (Fig. 2 and Fig. 3). Fluorine-18-fluorodeoxyglucose (18F-FDG) positron emission tomography/CT scan showed an FDG-avid lesion in the gastric mid-body.

These findings highly suggested gastrointestinal stromal tumor (GIST). We therefore decided to perform partial gastric resection after obtaining informed consent from the patient.

The final pathological report revealed gastric schwannoma located at the mid-body of the lesser curvature of the stomach. No cancer cells were identified. The neoplastic cells had immunoreactivity with S100 protein but no immunoreactivity with c-Kit.

DISCUSSION

Mesenchymal tumors of the gastrointestinal tract are mainly spindle cell tumors, which include gastrointestinal stromal tumors (GIST), leiomyoma or leiomyosarcoma, and schwannomas. Among these tumors, GIST is the most common (60–70%) occurring in the stomach [1]. The differential diagnosis for this neoplasm is difficult due to the macroscopic and microscopic similarities with other typical lesions of the stomach.

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Figure 2: Contrast enhanced CT




Image origin: Department of radiology, Hospital Hollabrunn, Austria

Area of interest: Abdomen

Imaging Technique: CT

Procedure: Contrast agent-intravenous

Special Focus:

Contrast enhanced CT shows a submucosal lesion at the lesser curvature of the gastric mid-body (arrow).

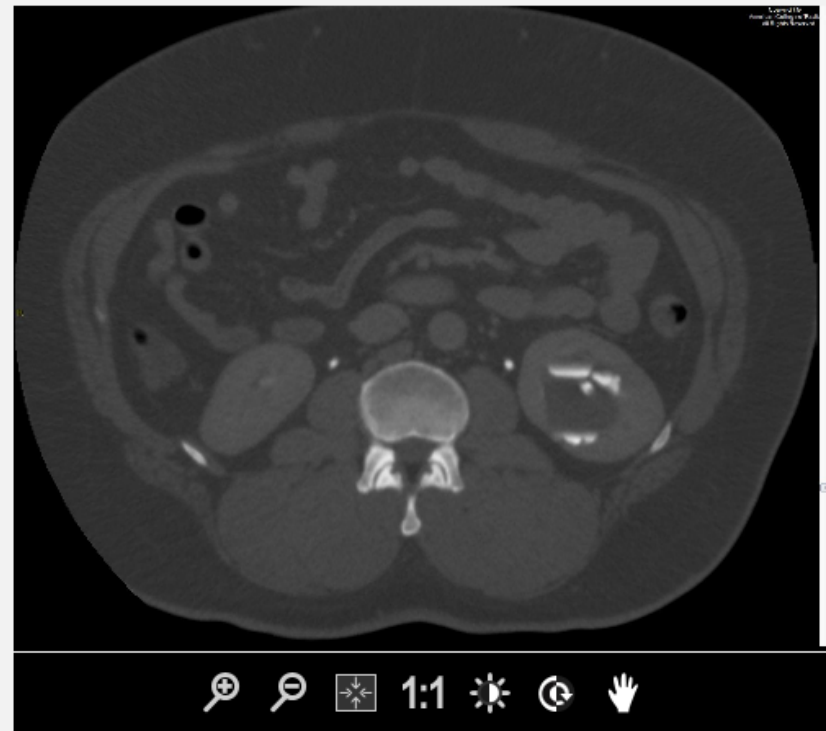
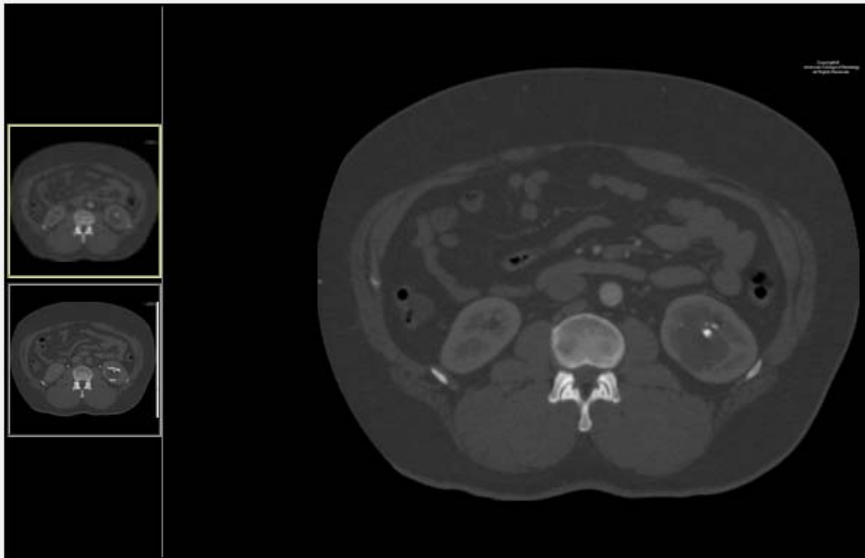
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INNOVATION IN RESEARCH, EDUCATION AND CLINICAL CARE



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The MIRC **Clinical Trials Processor (CTP)** lets researchers anonymize DICOM images, add supplemental data and transmit them to clinical trials repositories. CTP is highly configurable and designed to work with all commercial PACS systems. It is used in multisite imaging clinical trials by many large research institutions including the National Cancer Institute's National Biomedical Image Archive (NBIA).



Teaching File System (TFS)

Author, manage and share radiology teaching files.



Clinical Trials Processor (CTP)

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Abstract
Asgeprägte intraabdominelle Luft bei akutem Abdomen. Als Ursache stellte sich ein perforierter Ulcus duodenalis heraus.

Keywords
Pneumoperitoneum, freie Luft, freie abdominelle Luft, akutes Abdomen, Ulcus, Ulcus ventriculi

Publication Date: 2015-01-12

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Abdomen
Abdomen ap



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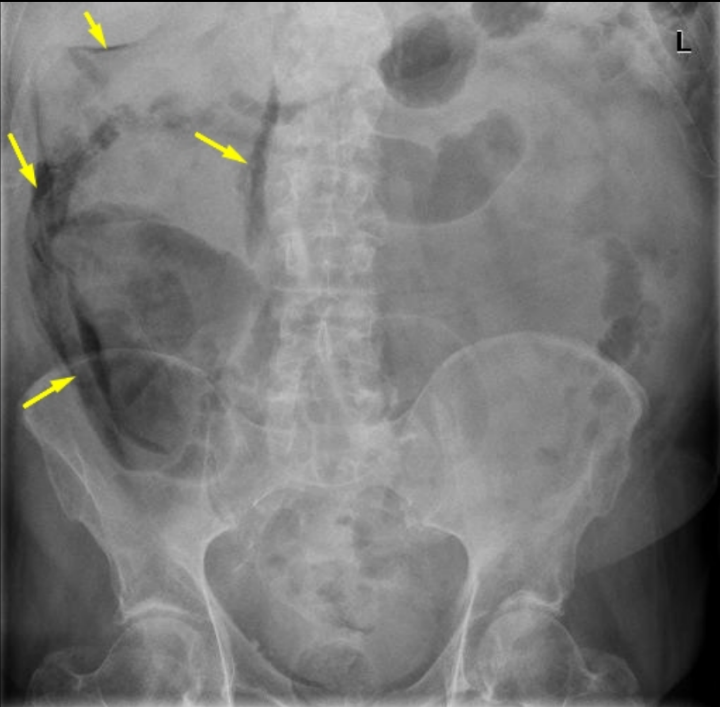
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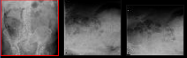
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Abdomen
Abdomen ap



Annotations Original Size Original Format ?

3 images



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Document History Findings Diagnosis DDx Discussion Comments References

History

healthy 12 year old male who noted a right sided "lump" on his abdomen. Had been experiencing loss of appetite, weight loss and lethargy.

Abdomen^CAP_21_TO_55KG_FLASH (Child)
Flash CAP 3.0 I40f 2

Original Format ?

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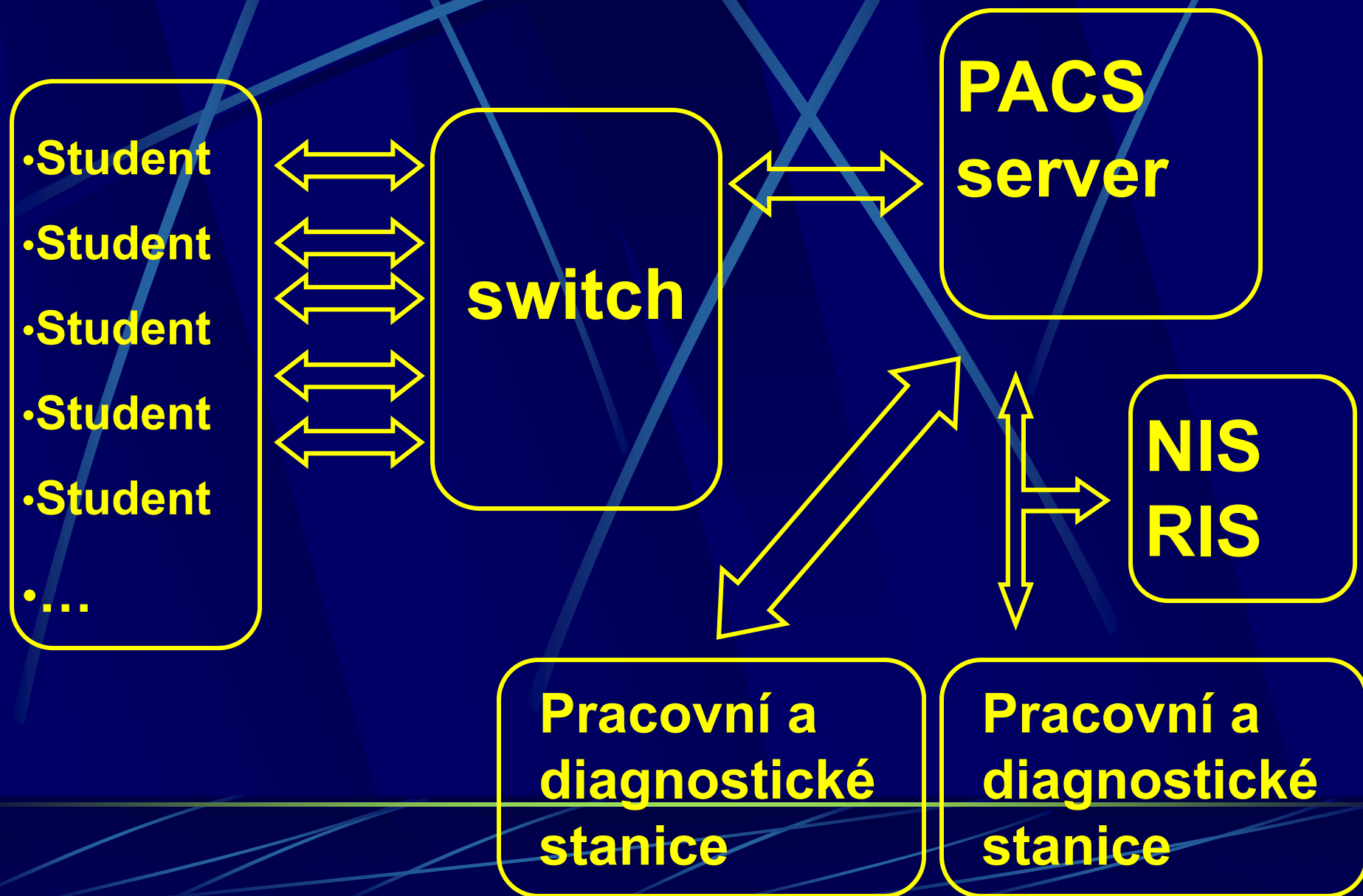
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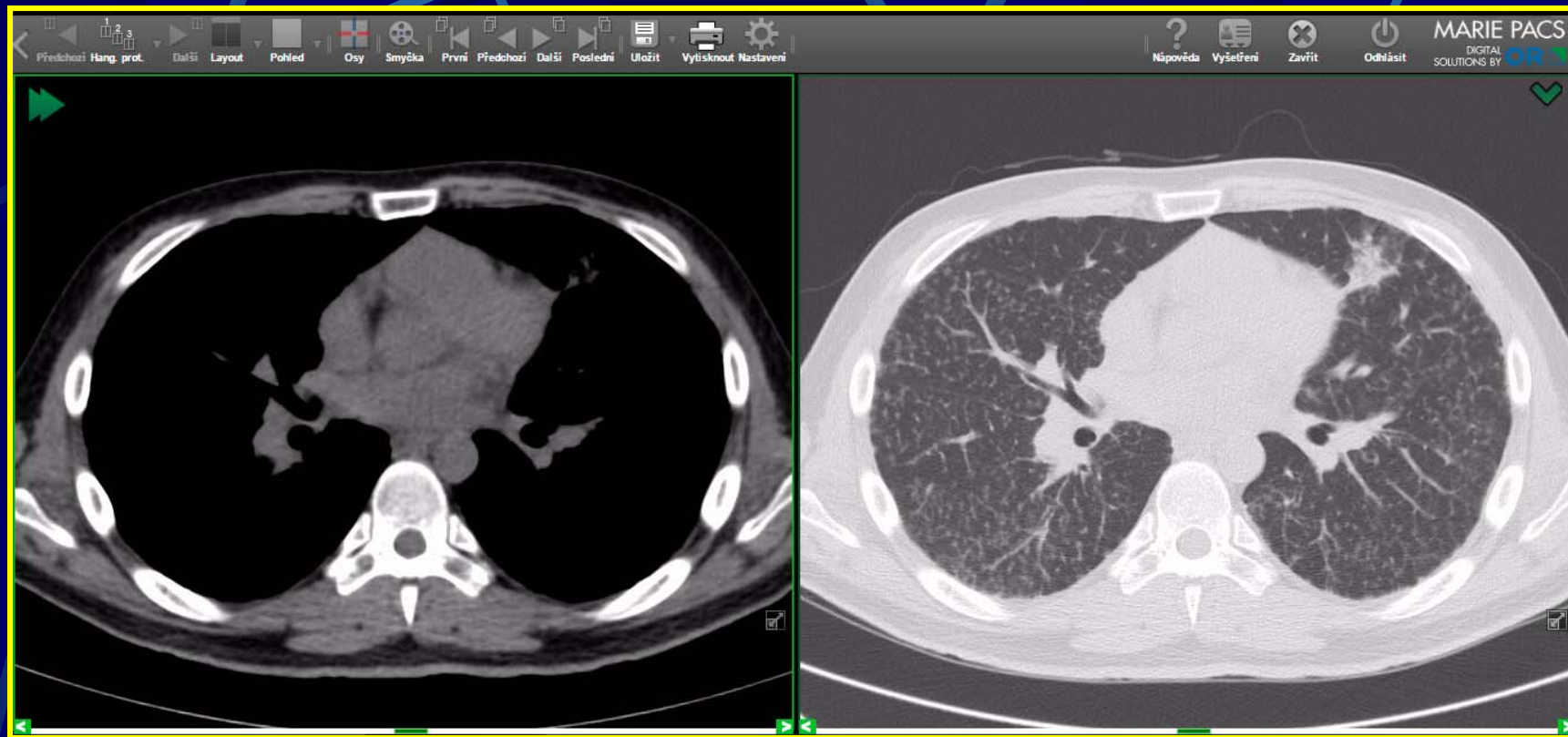


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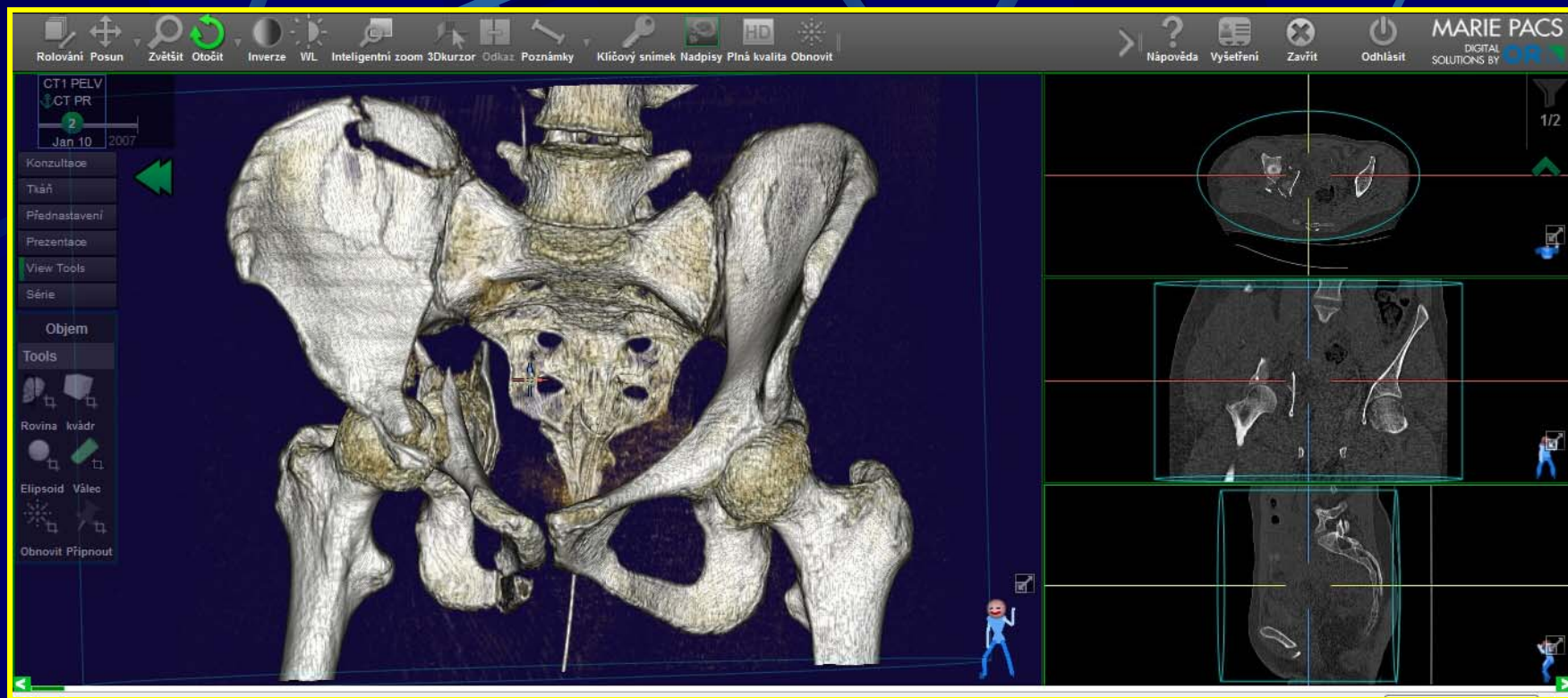
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