

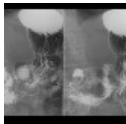
Radiodiagnostic examination of the esophagus and stomach

Skiagraphy

The esophagus can only be visualized on a plain image if it is pathologically altered.

- In the case of a bulky '*hiatal hernia*', an oval formation with a level can be seen in the cardiac shadow,
- a significantly enlarged esophagus with food remains can also be visualized in **achalasia**.
- When the esophagus is perforated, **pneumomediastinum** occurs, which creates a double contour on its edge, or pneumocolum.
- A voluminous gastric bubble with a level is displayed during '*distension*' of the stomach.

Fluoroscopy



Stomach X-ray: ulcer bulbi duodeni (<http://atlas.mudr.org/Case-images-Duodenal-bulb-ulcer-733>)

Although fluoroscopy is partially replaced by endoscopic examination, it still has its spectrum of indications.

- **Swallowing act and X-ray of the esophagus:** X-ray examination of the esophagus with barium contrast substance under fluoroscopic control. E.g., diverticle, hiatal hernia, esophageal varices, reflux esophagitis have their characteristic picture. X-ray of the esophagus is a key examination in tumorous stenoses when planning interventional treatment - insertion of an esophageal stent.
- '*X-ray of the esophagus with an aqueous contrast agent*': is indicated, for example, in postoperative conditions to rule out an anastomosis leak and assess its patency, but the assessment is indicative. This examination is also indicated if a bite is suspected to be stuck in the esophagus (e.g. a fish bone), where a cotton swab soaked in a contrast material is also administered, which can be caught in the place of the bite being stuck.
- **X-ray of the stomach:** examination almost completely replaced by endoscopy. For example, the extent of tumorous infiltration, ulcers can be assessed.
- **Videofluoroscopy:** a special examination for swallowing disorders, when the act of swallowing is recorded with a high time resolution (20 fps) for the functional evaluation of individual phases of the act of swallowing.

Ultrasonography

Ultrasonographically, the part of the cervical esophagus to the left behind the thyroid gland can be visualized. The stomach can also be visualized, but there is a very limited assessment here: the posterior wall may not be completely visible for the filling. USG can also show gastroesophageal reflux in newborns and infants, but the use of this method is currently not recommended due to its low specificity.^[1]

Endoscopic ultrasonography

EUS has a very good resolution for pathologies on the mucosa of the esophagus, stomach, duodenum and the surrounding area (pancreas, nodes).

Computed Tomography (CT)

CT of the esophagus is most often performed for tumor staging. Just before starting the examination, the patient swallows a sip of contrast substance in order to visualize the lumen well. Stomach CT is performed after oral intake of 500-1000 ml of water, which will ensure good distension.

Angiography

Angiographic examination is usually indicated with a view to an interventional procedure in the setting of bleeding, where endoscopy has failed and in the case of a high risk of surgery.

Links

Related Articles

- Radiodiagnostic examination of the small intestine
- Radiodiagnostic examination of the colon

References

- VANDENPLAS, Yvan. Pediatric gastroesophageal reflux clinical practice guidelines: joint recommendations of the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) and the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN). *J Pediatr Gastroenterol Nutr* [online]. 49, vol. 4, p. 498-547, Available from <https://journals.lww.com/jpgn/Fulltext/2009/10000/Pediatric_Gastroesophageal_Reflux_Clinical.22.aspx>. ISSN 0277-2116.

External links

▪ Images on the topic at atlas.mudr.org:

- Karcinom jícnu: RTG jícnu a CT (<http://atlas.mudr.org/Case-images-Carcinoma-of-oesophagus-tumorous-stenosis-464>)
- Achalázie jícnu: RTG jícnu (<http://atlas.mudr.org/Case-images-Achalasia-of-Oesophagus-13>)
- Hiátová hernie: RTG jícnu (<http://atlas.mudr.org/Case-images-Achalasia-of-Oesophagus-13>)
- Karcinom střední části jícnu: CT a RTG jícnu (<http://atlas.mudr.org/Case-images-Carcinoma-of-oesophagus-middle-third-bifurcation-stent-454>)
- Hiátová hernie na RTG hrudníku (<http://atlas.mudr.org/Case-images-Hiatal-hernia-chest-radiograph-345>)
- Masivní laryngeální dysfágie: RTG jícnu a polykací akt (<http://atlas.mudr.org/Case-images-Massive-aspiration-laryngeal-dysphagia-tracheostomy-374>)
- Perforace jícnu: CT (<http://atlas.mudr.org/Case-images-Perforation-of-oesophagus-pneumomediastinum-393>)