Incidental findings in cancer patients: abdominal organs
Kurzfassung: Introduction

Incidental adrenal masses are commonly seen in cross-sectional studies such as CT and MRI, which are being used with increasing frequency in daily practice in the last several years. Different studies have shown that the incidence ranges from 3-4%. The incidence rises in the older population and it has shown that in subjects with hypertension and diabetes that the incidence rises above 10%.

But in oncology patients, even though adenomas are common, metastases are also more frequent especially for example in subjects with lung cancer. Therefore, it is essential to differentiate between adenomas and metastases and other non-adenomatous masses.

Other benign masses

Other benign adrenal masses that are less commonly seen include adrenal cysts, myelolipomas and adrenal hemorrhage. These lesions at times have typical features on imaging that may permit their diagnosis. But at times for example cysts when complicated by hemorrhage or infection, may have imaging features that make it impossible to distinguish from cystic malignant tumors.

Adrenal adenomas and malignant masses

Differentiation using CT, MRI and PET

In the past decade there have been multiple studies that have shown with high accuracy that most adenomas can be distinguished from malignant lesions (mostly metastases) by density measurements (HU) on unenhanced CT and using adrenal CT washout features. Similarly using chemical shift MR imaging this differentiation between the entities has been made. These techniques have been also validated on a few studies distinguishing between adenomas and primary malignant adrenal masses i.e. adrenal cortical carcinomas and pheochromocytomas. PET imaging has also been shown to capable of differentiating benign from malignant masses with a high degree of accuracy.

Pitfalls

At times metastases from lipid-containing primary malignancies such as clear cell renal carcinoma, and well differentiated HCC, as well as primary adrenal malignancies such as ACC and pheochromocytomas can demonstrate findings on density measurements, washout and CSI-MRI that are similar to adenomas.

In a small percentage of cases, adenomas can demonstrate increased tracer uptake mimicking malignant tumors.

Adrenal biopsy

The role for adrenal biopsy has diminished over the last decade being currently only rarely used to confirm diagnosis of a solitary site of metastasis and in rare instances where imaging is indeterminate.
Kurzfassung: The increasing and widespread use of imaging studies has led to an increase in detection of incidental focal liver lesions (FLL). The differential diagnosis of incidentally found FLL is complex. Characterization of a FLL begins as soon as it is detected by imaging. The patient’s history is essential to narrow the differential diagnosis. An imaging study that is used to detect liver masses should also allow to determine whether the lesion is benign or malignant. US is effective in detecting and characterizing typical hemangiomas, cysts or calcifications. Contrast-enhanced ultrasound (CEUS), when in experienced hands, can reliably characterize the majority of lesions found at B-mode US. One of the most important clinical scenarios is the (incidental) detection of a small FLL during contrast-enhanced MDCT of the chest/abdomen and pelvis. In this setting the accurate differentiation of benign and malignant lesions is critical to ensure the patient undergoes the appropriate therapeutic option. Thus the MDCT scan protocol (amount of iodine, iodine delivery rate, scan delay, number of scans, slice thickness, etc.) should be optimized to differentiate between small cysts and solid lesions. In equivocal cases contrast-enhanced MRI including diffusion-weighted imaging is a powerful tool for characterization. Non-specific gadolinium chelates are preferred for identification of small hemangiomas (vs. metastases), whereas liver-specific agents are recommended for characterization of hepatocellular lesions. Retrieval of and comparison with previous studies may help to avoid costly further work-up altogether. Demonstration of de novo growth or long-term stability of a lesion is often sufficient to make treatment decisions.

Lernziele: 1. To learn about the prevalence of incidental focal liver lesions (FLL).
2. To learn how to reliably characterize FLL.

RöKo INT 103.3 Pancreas
16:10 Uhr Referent(en): Morana G
**Kurzfassung:** Pancreatic incidentalomas (PI) are discovered with increasing frequency as the use of high quality cross sectional imaging is becoming more widespread. They cover a wide spectrum of pathology from benign simple cysts through potentially malignant lesions such as intraductal papillary mucinous neoplasia, to frankly malignant adenocarcinoma. The incidence of malignancy in PI is lower than in symptomatic pancreatic lesions (31% vs 76%), however, malignant histology is found up to 30% and pre-malignant up to 50% in PI in surgical series. A simple classification of PI subdivides lesions in SOLID LESIONS (NON ENHANCING or ISOENHANCING; HYPOENHANCING; HYPERENHANCING) and CYSTIC LESIONS (NON COMUNICATING or COMUNICATING with main pancreatic duct). Fatty infiltration, pancreatic lipoma, intrapancreatic spleen, pancreatic anomalies can give a solid appearance of the pancreas. However, all different solid tumors of the pancreas can be incidentally discovered. Among CYSTIC LESIONS of the pancreas, frequency of detection of CPL ranges from 2.4% to 19.6%. Pseudocysts are usually present in Pts with previous Hx of pancreatitis. Serous cystic neoplasm (SCN), mucinous cystic neoplasm (MCN), solid pseudopapillary tumor (SPT) can all have cystic appearance, the latter being more frequent in young patients: MCNs occur almost exclusively in the body-tail of the gland, whereas SCNs have no site predilection; cystic lesions in males and those in the head of the pancreas are unlikely to be MCN. A multicystic pattern of pancreatic lesions is more frequently observed in SCN, whereas an oligo- and/or macrocystic pattern is more frequently observed in MCN. Serous oligocystic adenoma has a multicystic or lobulated contour with or without septation, whereas mucinous cystadenoma has a smooth contour with or without septation. Finally IPMN are cystic lesions communicating with main pancreatic duct, whose malignant potential is related to the involvement of the main pancreatic duct, size of the cyst and presence of solid component inside the lesions.

**Lernziele:**
- to learn about the incidence of incidental pancreatic lesions
- to illustrate the different imaging findings of pancreatic incidentalomas
- to discuss about the best management of PI

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<th>Female pelvis</th>
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<td>16:30 Uhr</td>
<td>Referent(en): Rockall A</td>
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**Kurzfassung:** Pelvic masses are relatively common in women and the vast majority are benign in nature. These can include benign uterine leiomyoma, physiological ovarian cysts or benign ovarian lesions which may be cystic, such as cystadenoma/adenofibroma or solid, such as fibroma/fibrothecoma. When a pelvic mass is detected incidentally on imaging for cancer staging of a non-gynaec cancer, comparison with any previous imaging can be very helpful in confirming whether a mass is longstanding, such as a leiomyoma. However, where there is concern for possible significant pelvic disease, such as an ovarian metastasis, it is important to undertake appropriate investigations to confirm the diagnosis. Ultrasound is the initial investigation and where this is indeterminate, MRI may be used for problem-solving.