

# The honeycomb pattern of pancreatic serous cystadenoma

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The “honeycomb pattern” is a radiological finding described for the imaging appearance of pancreatic serous cystadenoma. It refers to the presence of numerous subcentimeter cysts that may be poorly distinguished as individual cysts by cross-sectional imaging, resembling a “honeycomb” (Fig. 1) [1].

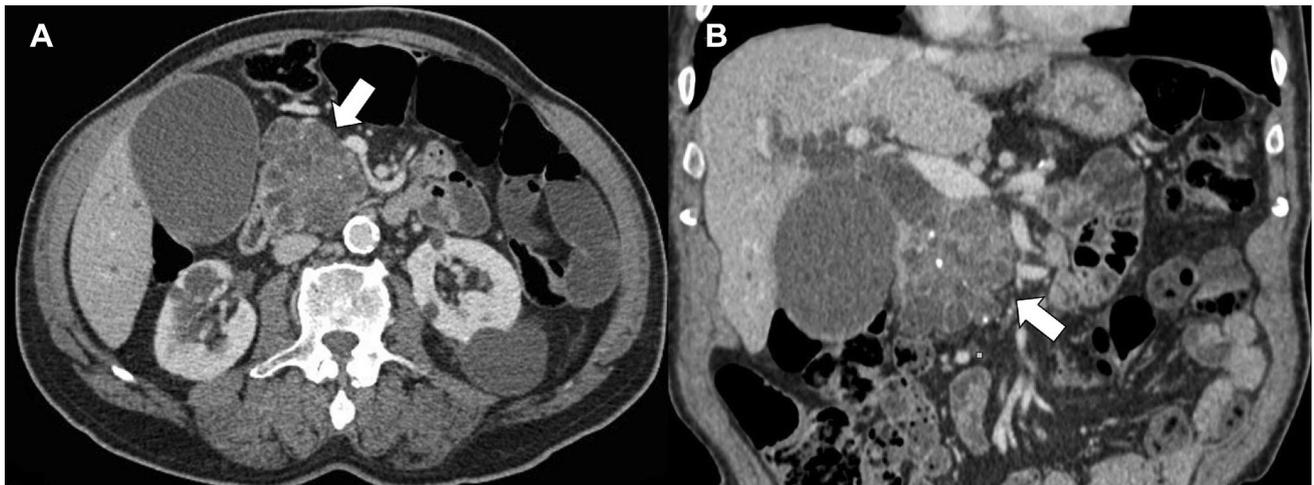
Serous cystadenoma of pancreas is a benign neoplasm, which accounts for approximately 16% of primary cystic pancreatic neoplasms [2]. Typically located in the pancreatic body and tail, the majority are detected incidentally in women at an average age of 50–60 years [3]. Histopathologically, serous cystadenoma of pancreas is composed of cuboidal, glycogen-rich, epithelial cells, without cellular atypia, that form innumerable small thin-walled cysts containing serous fluid. The morphologic patterns of serous cystadenoma can be classified as polycystic (or microcystic), honeycomb, oligocystic, and solid pattern [2]. The honeycomb pattern is seen in approximately 20% of cases. On CT, it may appear as a

well-marginated lesion with soft-tissue or mixed attenuation, depending on the size of the cysts and the amount of fibrous tissue, which may show moderate-to-strong enhancement (Fig. 2) [4]. MRI can better characterize the honeycomb pattern demonstrating a cluster of tiny T2 hyperintense cystic lesions, surrounded by thin hypointense septa (Fig. 3). The central scar is a less sensitive (15%) but specific sign of pancreatic serous cystadenoma [3].

Differential diagnosis for the imaging appearance of pancreatic serous cystadenoma includes cystic pancreatic lesions (such as pseudocyst, mucinous cystic neoplasm, IPMN, cystic neuroendocrine tumor) and solid pancreatic lesions with cystic changes or intratumoral necrosis or hemorrhage (such as islet cell tumor and solid pseudopapillary tumor) [2].

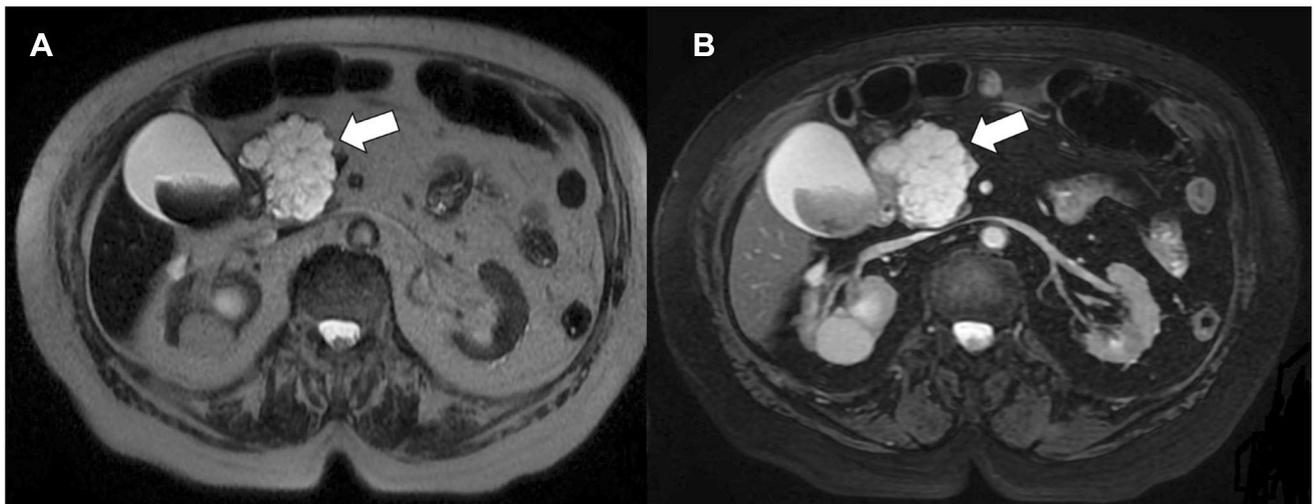


**Fig. 1.** Honeycomb and bees. Public domain image (<https://pixabay.com/it/alveare-api-a-nido-d-ape-honey-bee-337695/>). Accessed 06/09/2018.



**Fig. 2.** A 83-year-old man with a honeycomb serous cystadenoma within head of pancreas. **A** Axial contrast-enhanced CT image on portal venous phase shows a lobulated spongiform low-attenuation mass (arrow) with

poor visualization of individual microcysts. **B** Corresponding CT coronal reformation depicts numerous microcysts separated by thin internal septa (arrow) and central microcalcifications.



**Fig. 3.** A 82-year-old woman with serous cystadenoma within head of pancreas. Axial T2-weighted MR images, SSFSE (**A**) and 2D Fat Sat FIESTA (**B**) sequences, clearly

depict honeycomb pattern (arrows), due to the presence of innumerable, tiny, high-signal cystic lesions.

#### Compliance with ethical standards

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**Research involving Human Participants and/or Animals** This article does not contain any studies with human participants or animals performed by any of the authors.

**Informed consent** Statement of informed consent was not applicable since the manuscript does not contain any patient data.

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