Suppl. Fig. 1. Angioma Typ V: 1. Artery of twisted course (white arrow). 2. The accompanying portal vein shows enhancement before the portal phase (red arrow), suspicious for arterio-portal fistulas. 3. Sinusoidal filling proximal of the tumor in arterial phase (white arrow). 4. Microbubbles are seen too early in the hepatic vein 13 sec after administration. 5. Contrast agent at the margin of the tumor. 6. The liver vein is completely filled with bubbles and the noduli in the tumor are clearly visible.

Suppl Fig. 2. HCC. Inhomogeneous Parenchyma, no Tumor is delimitable. 15 sec p.i. disordered arteries of different sizes and calibers. 2 more Masses at 11 o’clock. Irregular distribution of Microbubbles within the tumor according to its intranodal degree of dedifferentiation.

Suppl Fig. 3. Lobulated inhomogeneous mass, blurred margins. An unimpeded artery passes through. 17 sec after administration of contrast agent the margin and adjacent parenchyma are hypervascular because of tumorfistulas. Loss of portal perfusion 37 sec later.

Suppl Fig. 4. Inhomogeneous parenchyma dorsal of the hepatic vein, echopoor mass right. The metastases show expected hypovascularization while the echopoor mass is filled up with bubbles with typical pattern for angiomas type 1a.

Suppl Fig. 5. Infected fistula after pancreas surgery. Liver lesion, not conclusive. With CEUS the typical hypervascular rim of the unenhanced mass is seen 10 sec after administration of microbubbles.Later on the former hypervascular margin is now hypovascular due to pylephlebitis.

Suppl Fig. 6. Liver abscess caused by staph.aureus. Contrast agent passes over from the cavity into the bile ducts.

Suppl Fig. 7. Dilated duct of pancreas. Round slightly echopoor mass, with uneven margin. CEUS shows hypovascular tumor suspicious for ductal adenocarcinoma.

Suppl Fig. 8. GIST of the duodenum. Left: gray scale image suggests a partially necrotic tumor, leaving just enough space for the chymus to pass through. Right: CEUS proves a solid highly vascularized tumor without necrosis.

Suppl Fig. 9. Development of a huge hepatic metastasis of rectal cancer from date of initial diagnosis to resection after chemotherapy. Semiliquid mass occupying the right hepatic lobe, at date of initial diagnosis showing a rich vascularity on CEUS. Left lobe laps widely over the spleen (Not seen in pictures). Below : Vessle density and size decrease unter chemotherapy. Resected tissue.

Suppl Fig. 10. Follow-up of liver metastases under therapy with angiogenesis inhibitor. This patient underwent 13 CT scans of the thorax and abdomen to monitor the development of the liver metastases. Left up and below : grayscale image and the corresponding CEUS show a metastasis plus a angioma next to it. Middle up and below : on grayscale image no change is seen. CEUS shows a little new metastasis. Right up and below : grayscale image shows a change in echogenity but no new solid lesion. CEUS reveals a compensating segmental hyperperfusion in consequence of disturbance of portal perfusion due to massive progress of metasates.

Suppl Fig. 11. Surveillance under chemotherapy of pancreatic adeno carcinoma . Left : tumor masses sourround the superior mesenteric vein. middle : a branch of the vein compessed. right : CEUS shows a subtotal compression of the branch by tumor masses and therefore proofes progression.

Suppl Fig. 12. Follow up after resection of a cystadenocarcinoma of the pancreatic tail. Patient presents with shiver, fever, tachycardia and right upper quadrant pain. Left up : on grayscal image the common bile duct is dilated and its lumen shows echogenety. Microbubbles appear in the predescribed region representing tumor vessles and prooving vital tissue instead of clot or pus. A metal stent was placed in the lumen of the bile duct.

Suppl Fig. 13. Follow up after resection of metestases of a neuroendocrine tumor. A partially cystic mass is suspicious for neuroendocrine origin. CEUS shows the hypervascular pattern with nekroses. On PET-CT and ultrasound a second mass is seen underneath the liver capsule. Histologic exam remained not conclusive for malignancy. CEUS shows the situs after surgery. The metastases stills remains in the liver.