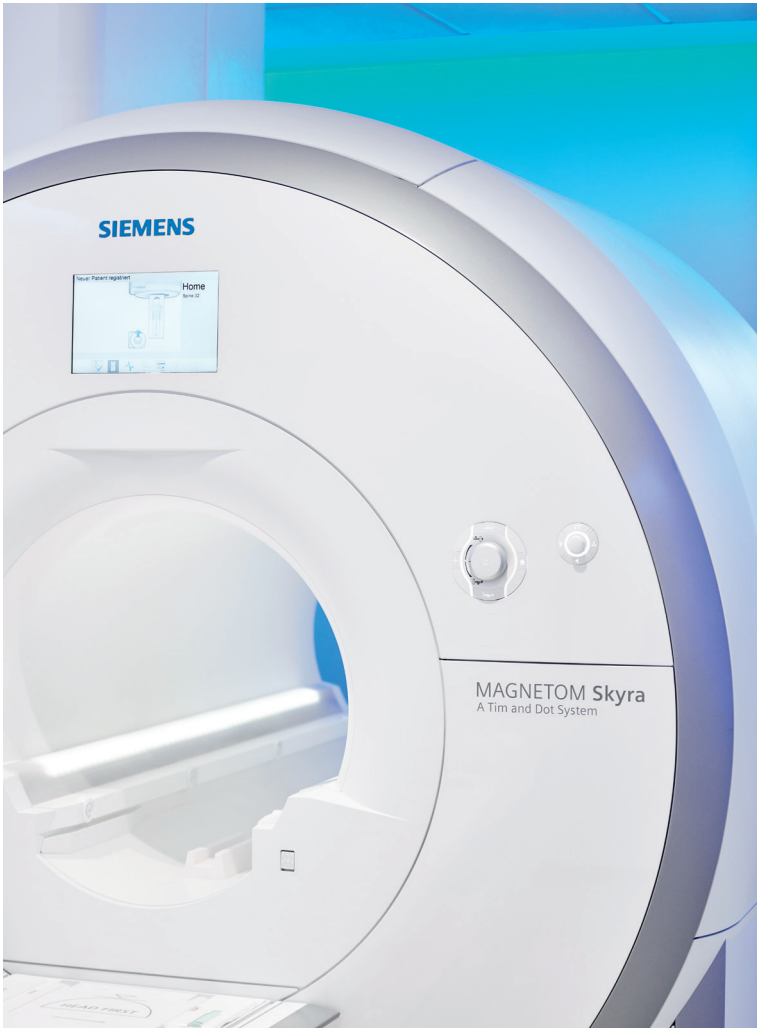
INTERVENTIONAL RADIOLOGY

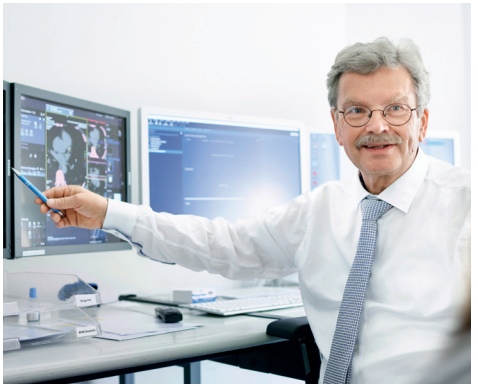
MAX GRUNDIG KLINIK

Bühlerhöhe




TAKE THE ADVANTAGE OF INTERVENTIONAL TREATMENTS
PROVIDED UNDER THE OUTSTANDING CONDITIONS AND AMBIANCE
OF MAX GRUNDIG CLINIC IN THE MIDDLE OF THE BLACK FOREST.

Max Grundig Clinic offers the service of minimally invasive catheter-based interventional treatments for patients with vascular and oncologic diseases.



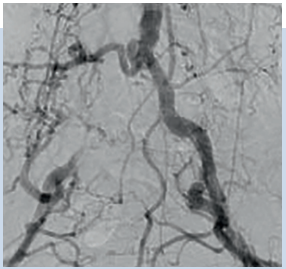


Fig. 1
62-year old man suffering from intermittent painful walking of the right leg after distances between 120 and 150 m.

Left angiographic image shows 8 cm long occlusion of the right iliac artery.

Right image shows patent iliac artery after ballooning and stent angioplasty. The procedure was done via catheters 2mm in diameter introduced via the right and left groin and lasted 90 min.

Interventional treatments of peripheral vascular diseases (PAD) comprise:

- Treatment of patients with PAD who suffer from intermittent claudication (painful walking) or chronic critical limb ischemia (rest pain, ulcers of the foot).
- Catheter-based recanalization of the underlying occlusions of iliac and/or infrainguinal femoropopliteal and cruropedal arteries (Fig. 1, Fig. 2).
- Use of balloon angioplasty, stent angioplasty, stent-grafts and drug eluting devices.
- Minimal invasive treatments are performed in local anesthesia and under sedation via catheter access in the groin and without surgical procedures.
- Interventional treatments are accompanied by medical care of angiologists pre- and post interventions.

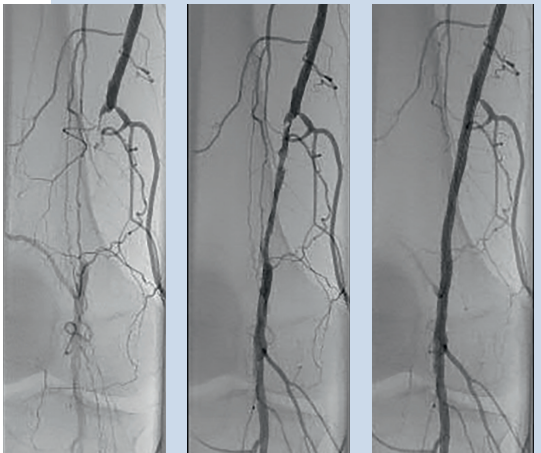
We offer the service of judgement of interventional treatment options in advance: For this purpose, you should send images (CT-/MRI-angiography) together with a short medical report by E-Mail (peter.huppert@max-grundig-klinik.de) or by mailing a CD to Radiology Center at Max Grundig Clinic.

Fig. 2
72-year old diabetic patient who had painful small ulcer at his right foot not healing over long time because of significant peripheral blood perfusion deficit.

Left: 6 cm long occlusion of the right femoropopliteal artery.

Middle: incomplete recanalization after initial balloon dilatation with 3 mm balloon diameter.

Right: complete recanalization after dilatation with a drug eluting balloon with 5 mm diameter and 5 mm/8 cm stent implantation.



Interventional treatments of oncologic diseases comprise:

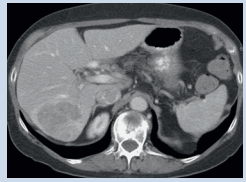
- Treatments of patients who suffer from primary malignant liver tumors, (hepatocellular carcinoma HCC and peripheral cholangiocellular carcinomas CCC) or liver metastases.
- Treatments are minimally invasive with image-guided transarterial chemoembolization (TACE).
- Low profile coaxial microcatheter systems were used for (super)selective catheterization of tumor-feeding arteries and local targeted tumor treatment (Fig. 3).
- Conventional (iodine oil-based) TACE and drug-eluting TACE (DEB-TACE) techniques are available and used on an individual based conception.
- Treatments are embedded in an oncologic service of our Department of Internal Medicine.

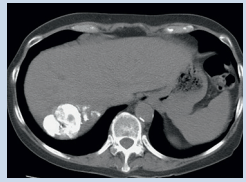
Medical report(s) and appropriate images (CT, MRI) should be sent in advance by E-Mail (peter.huppert@max-grundig-klinik.de) or by mailing documents and CD to Radiology Center at Max Grundig Clinic.

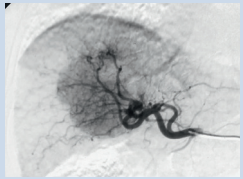
Judgement of treatment possibilities will be completed by us and reported to allow a decision by the patient, relatives and associated physicians already at home.

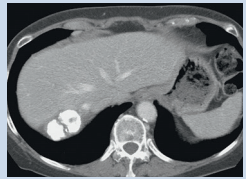
If necessary, diagnostic imaging can be completed in our clinic.

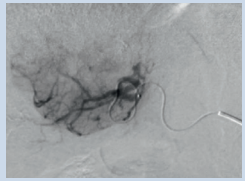
Fig. 3
64-year old patient with hepatocellular carcinoma. Oncology board recommended palliative transarterial chemoembolization (TACE); resection was impossible due to small future remnant volume of left liver lobe with expected insufficient liver function.


CT with huge 8 cm tumor in the right liver lobe.


CT 1d after TACE shows uptake of chemoembolic material within tumor tissue (white).


Angiographic image shows hypervascular tumor centrally in the right liver lobe.


CT 6 months after treatment shows tumor shrinking.


Superselective catheterization using coaxial microcatheter 1 mm in diameter.


CT 5 years after 3 TACE treatments; patient died 8 years after first TACE due to myocardial infarction.

Prof. Dr. med. Peter Huppert

Head of Diagnostic and Interventional Radiological Center

The head of our Diagnostic and Interventional Radiological Center P. E. Huppert, M.D. who is doing the procedures, is Professor of Radiology with an experience in Interventional Radiology of more than 30 years. He has written the chapters of interventional treatments of peripheral arterial occlusive disease as well as interventional treatments of liver tumors in the German Medical Guidelines of 2015 and 2021.

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