

CT平扫、多期增强扫描及多平面 重组的临床价值

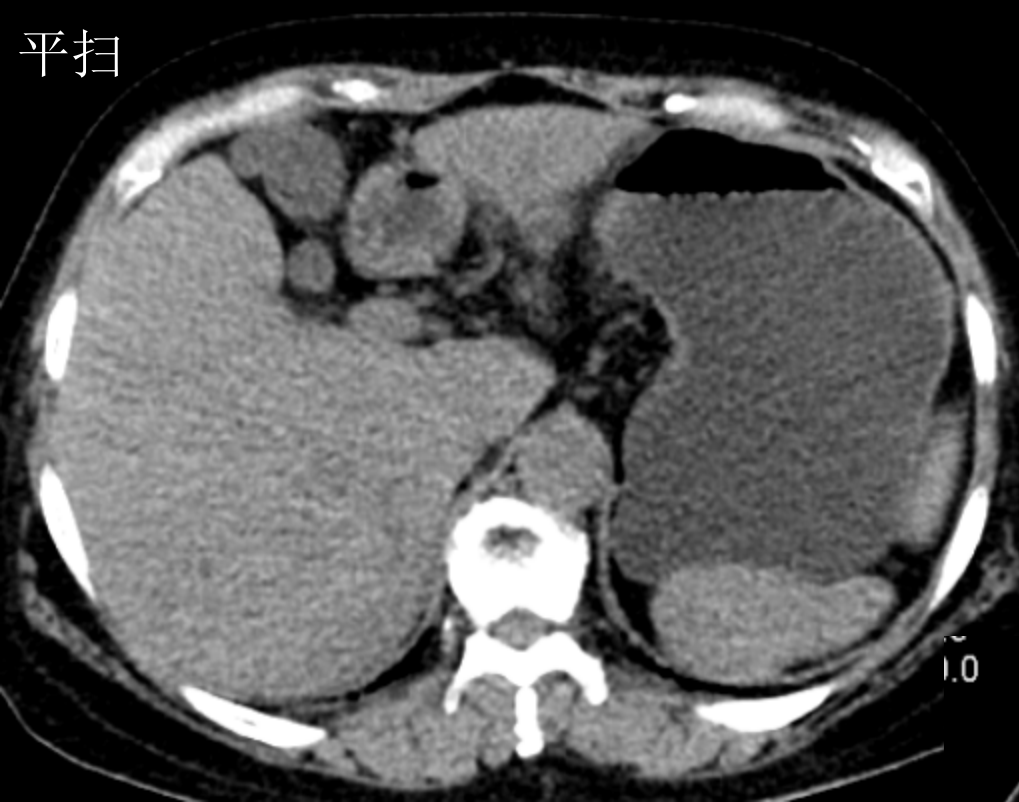
福建医科大学附属第一医院影像科

曹代荣



增强目的：增加对比

平扫





增强扫描为何还要平扫呢？
因为平扫的图像表现对定性
诊断也是至关重要的因素。

增强动脉期



动脉期增强CT



静脉期增强CT



女，42岁，左侧桥小脑
角区及中颅窝胆脂瘤

增强扫描病灶明显强化？



平扫表现为高密度，增强扫描各期病灶无明显强化。

平扫CT

多期增强扫描是必需的

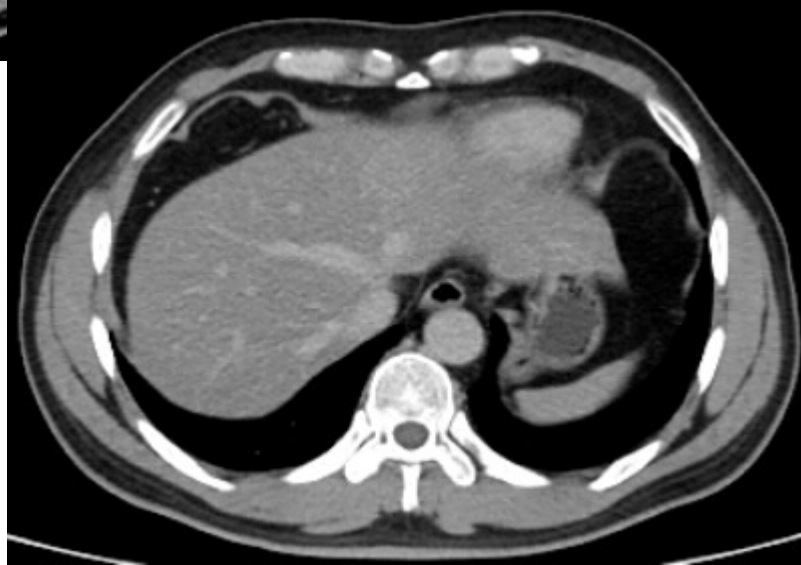


平扫

动脉期



平衡期



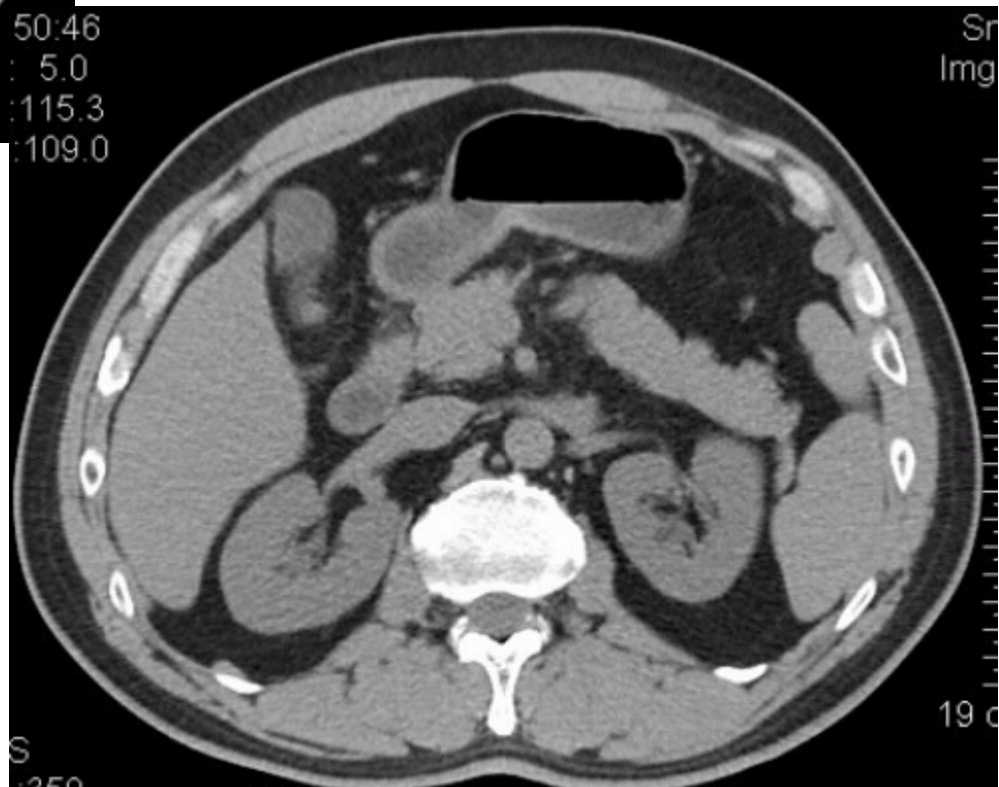
肝左叶病灶仅动脉期显示，
平扫及增强平衡期未显示。



平扫仅提示脂肪肝



平扫

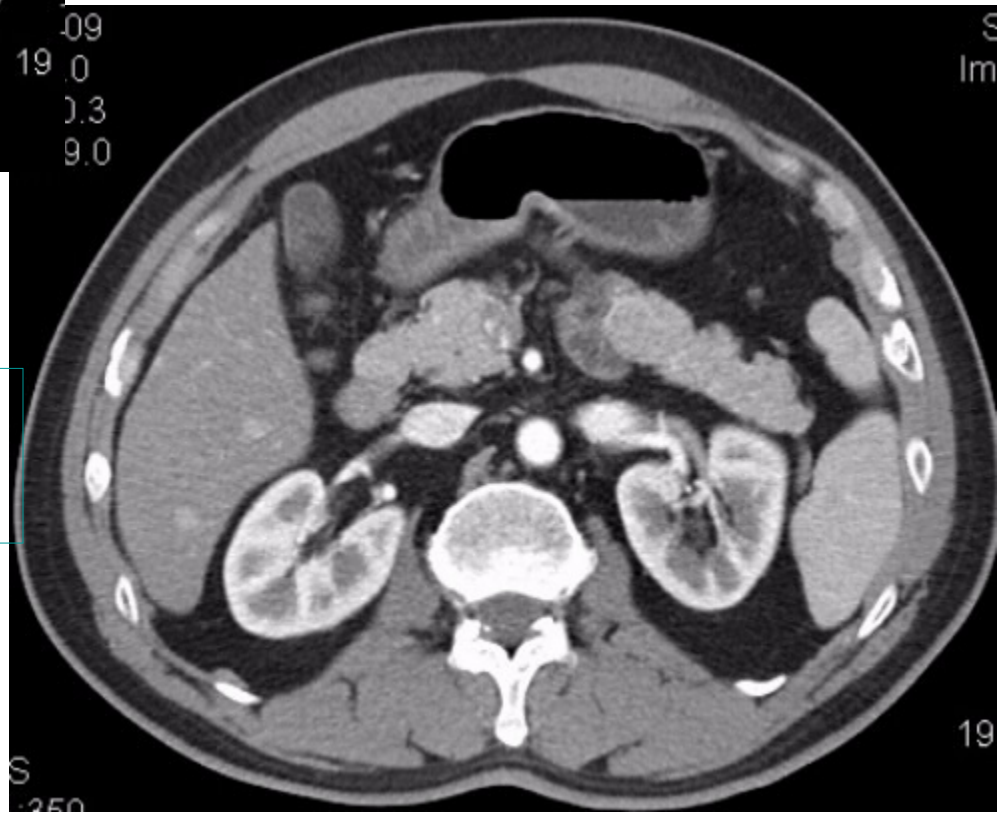




发现肝脏疾病，
增强扫描是必要的

动脉期

动脉期显示肝右叶多发强化灶，
术后病理证实为原发性肝癌。



08:39:04
ST: 5.0
TP: 32.5
SP:123.0

动脉早期



08:39:28
ST: 5.0
TP: 32.0
SP:123.0

动脉晚期



2013-03-01
08:40:25
ST: 5.0
TP: 37.5
SP:123.0

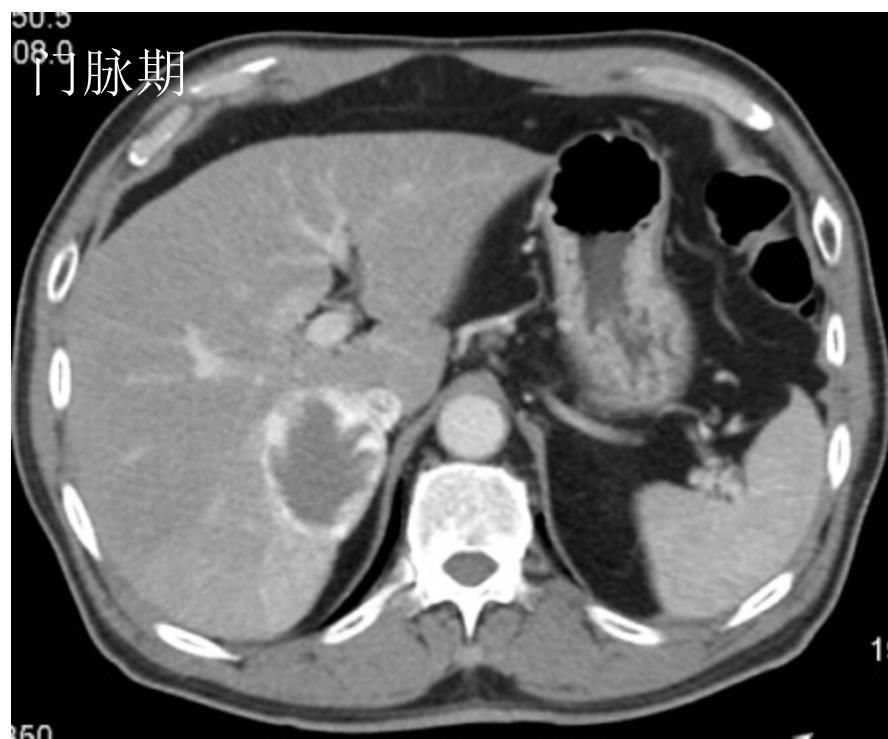
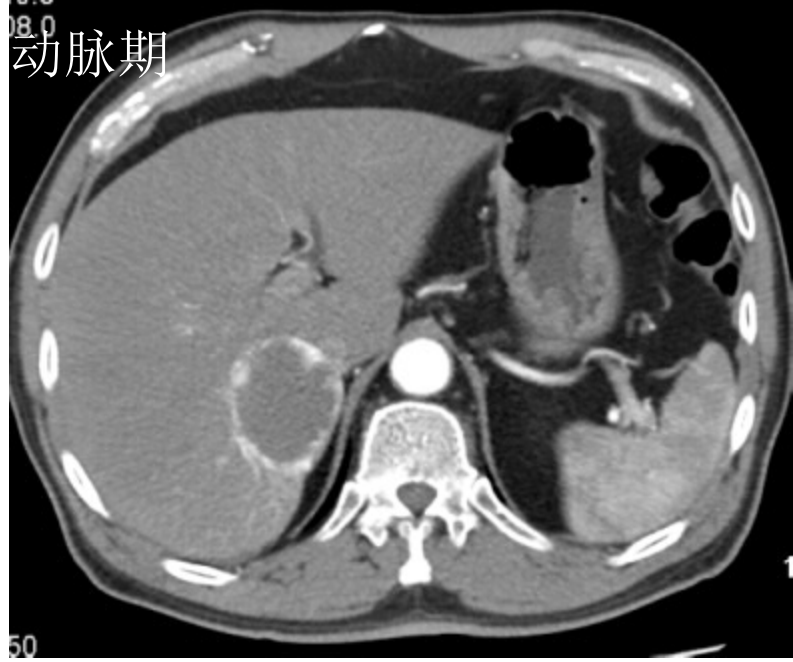
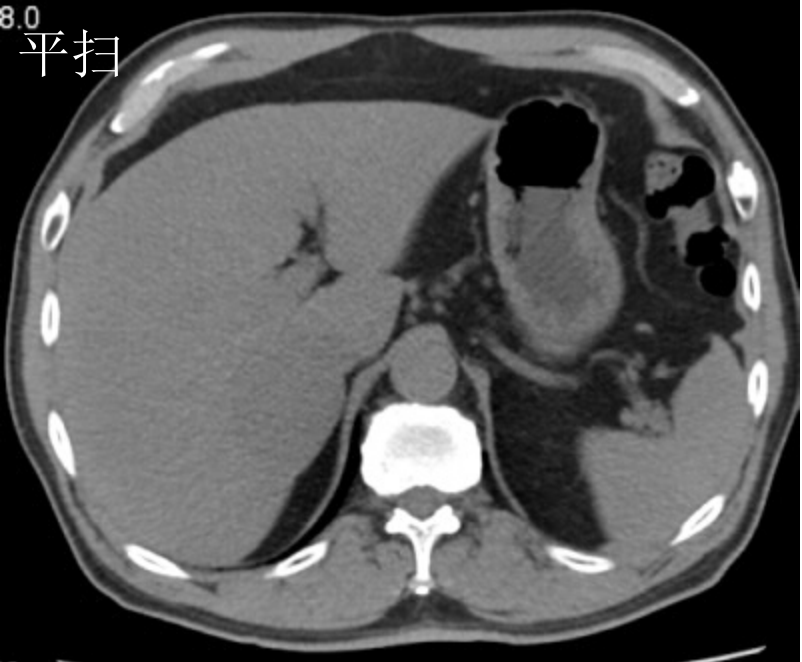
平衡期

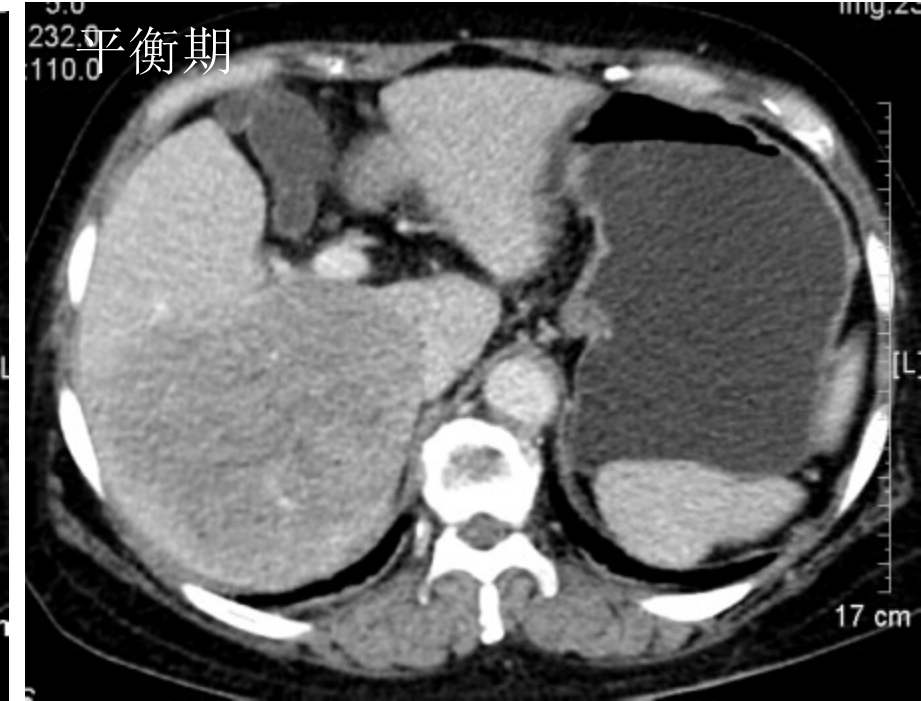
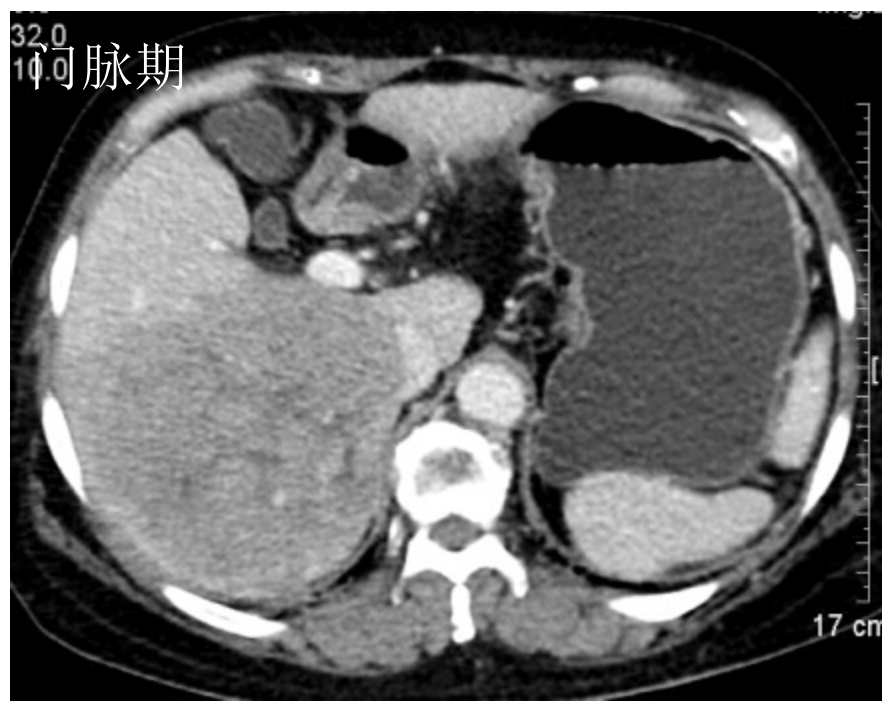
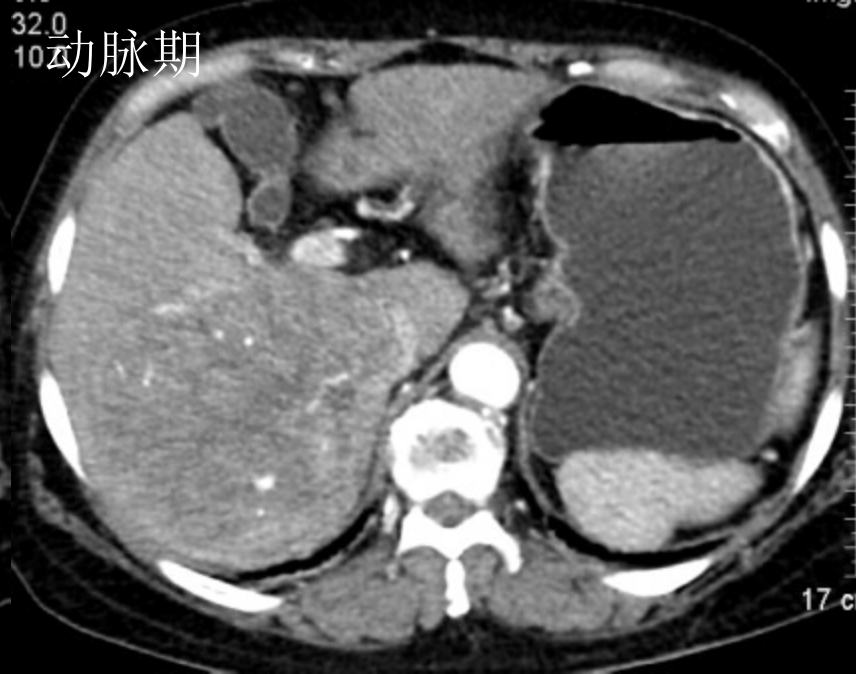
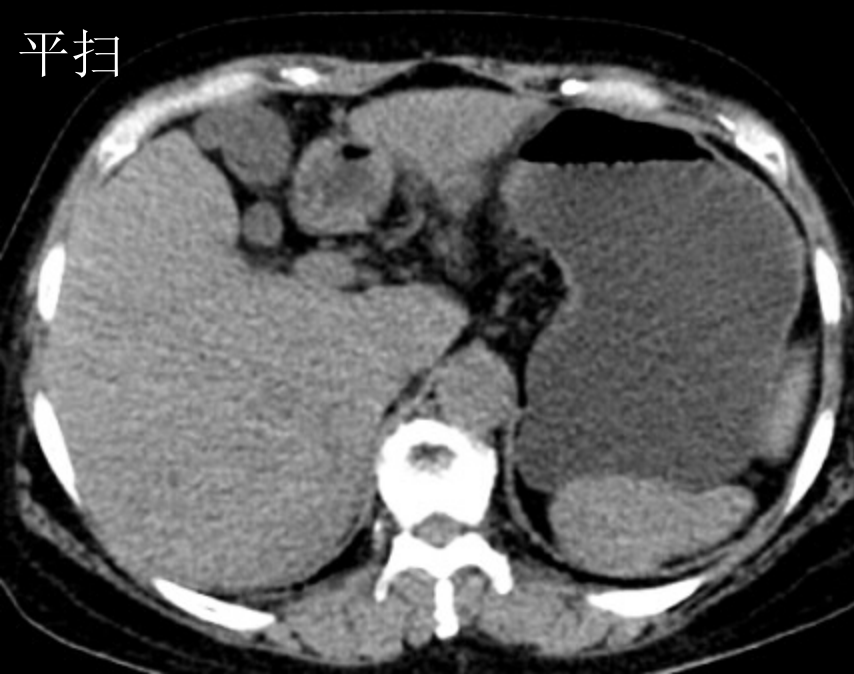


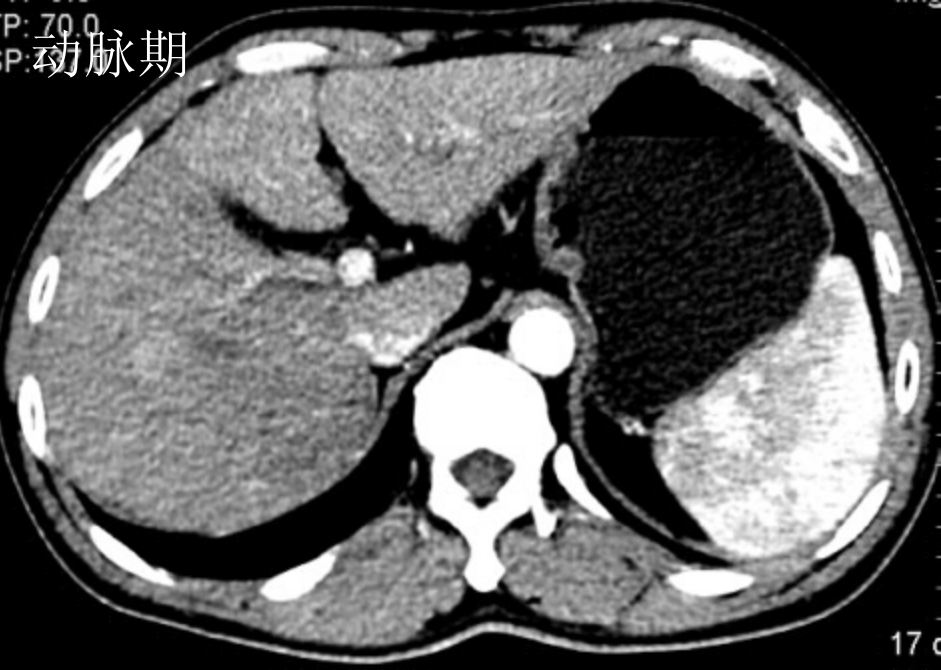
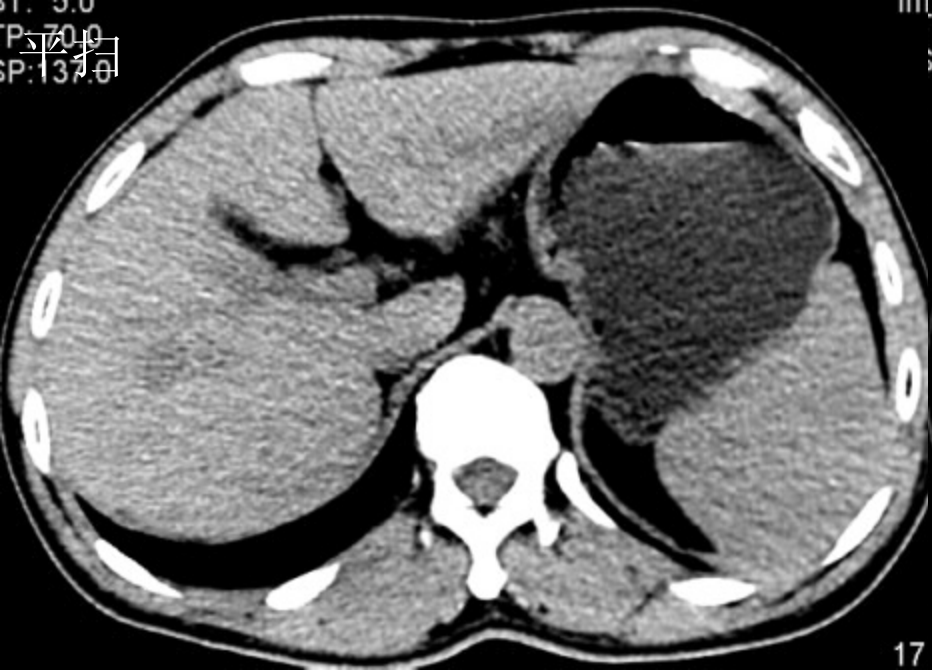
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门脉期

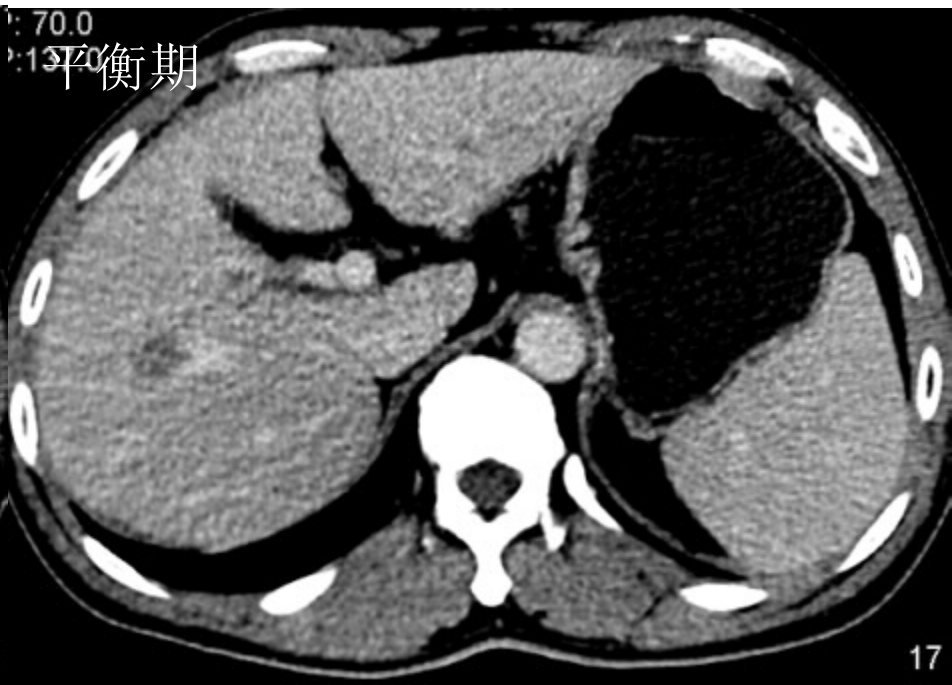
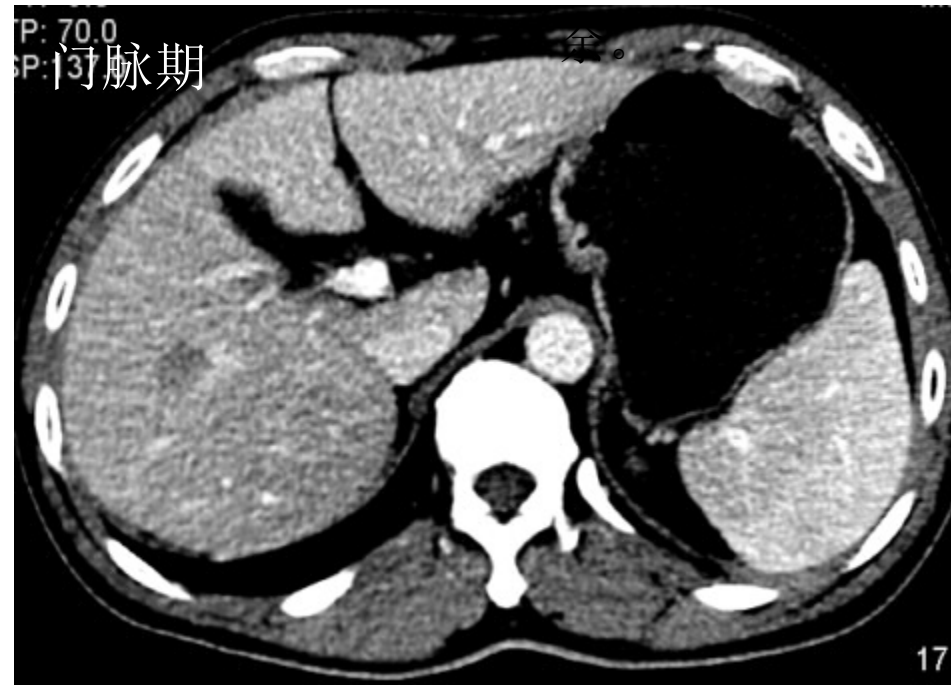


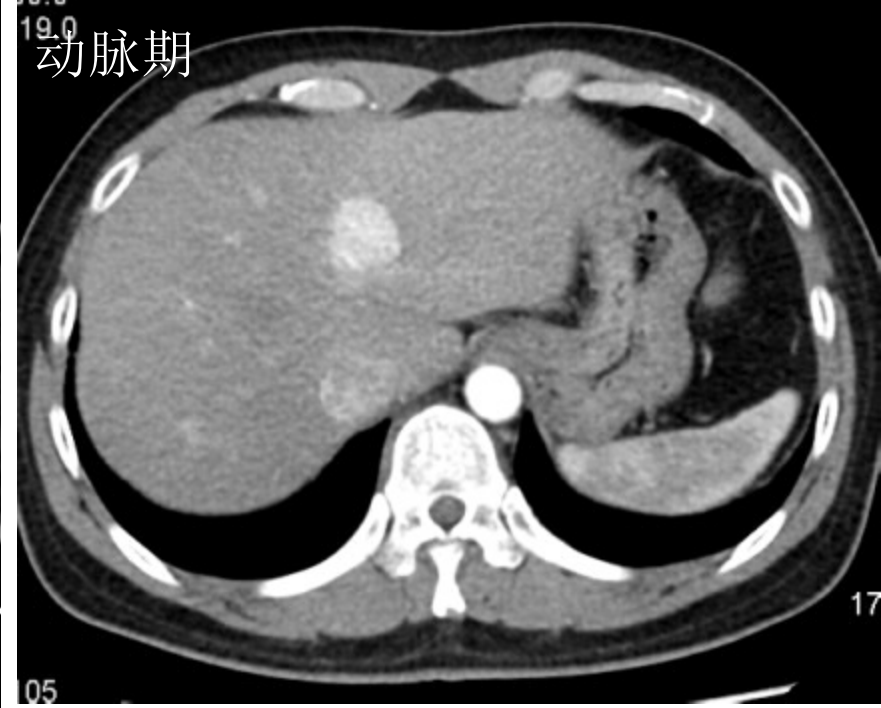






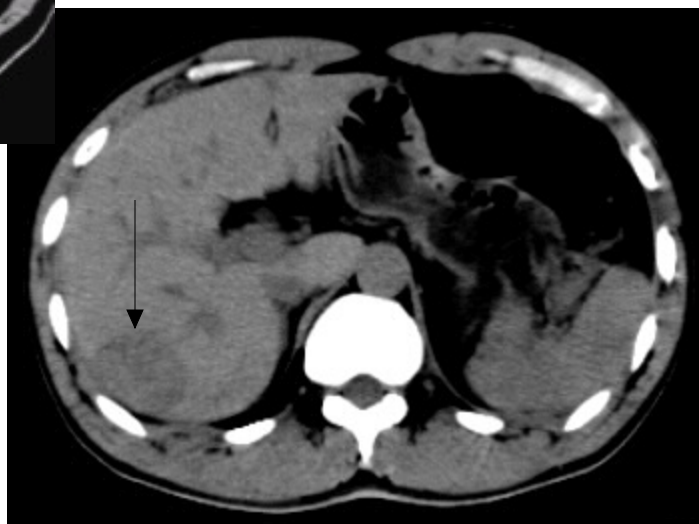
男，40岁。左上腹疼痛1周







病例1



病例2

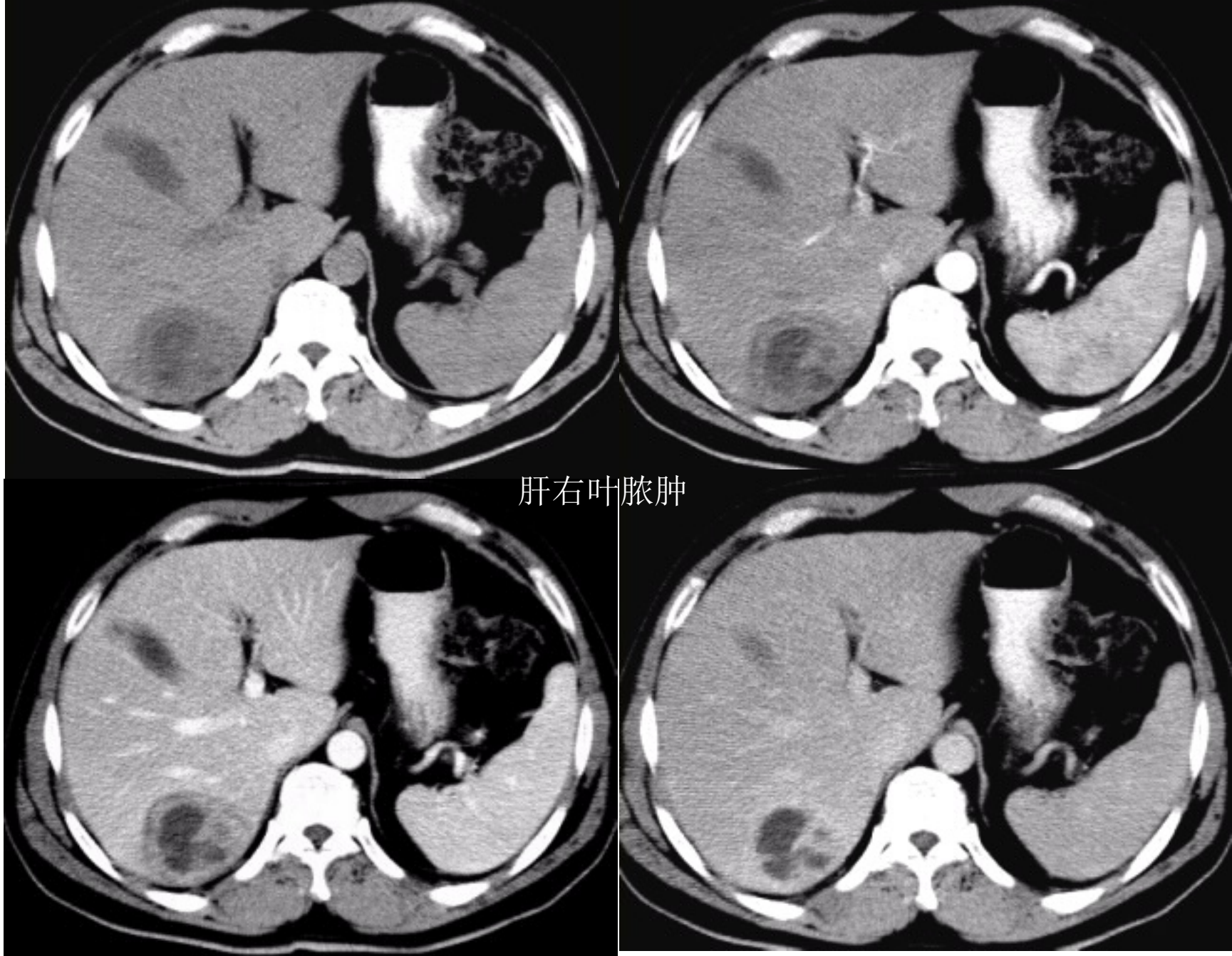
单纯肝脏CT平扫无法确定病变的性质

三个不同病人均为B超体检发现肝内占位

病例3

三个不同病人肝脏CT平扫片示肝右叶低密度灶，病变性质??

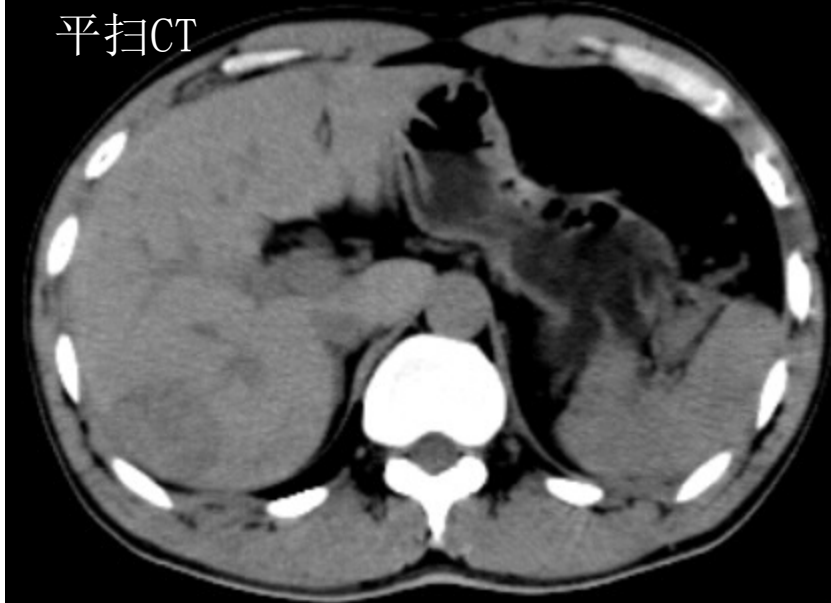




肝右叶脓肿

病例1,

平扫CT



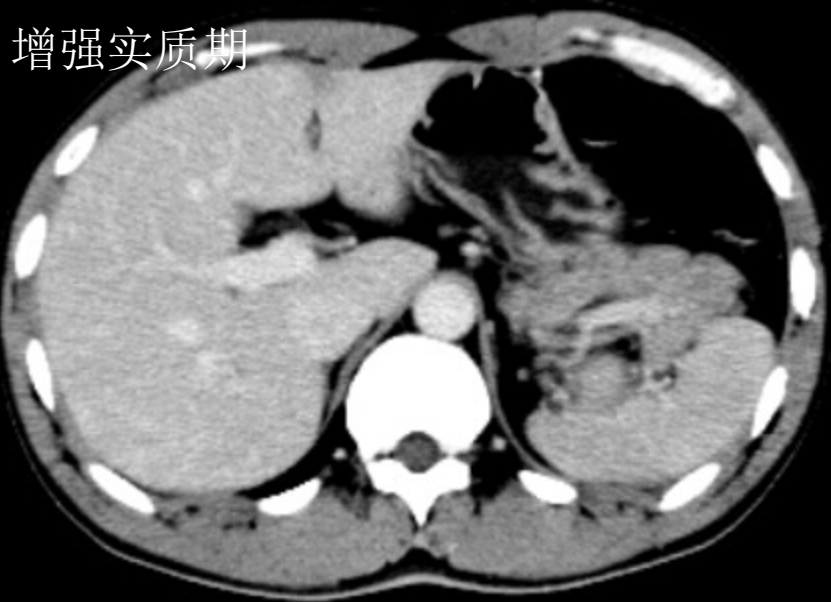
增强动脉期



增强门脉期



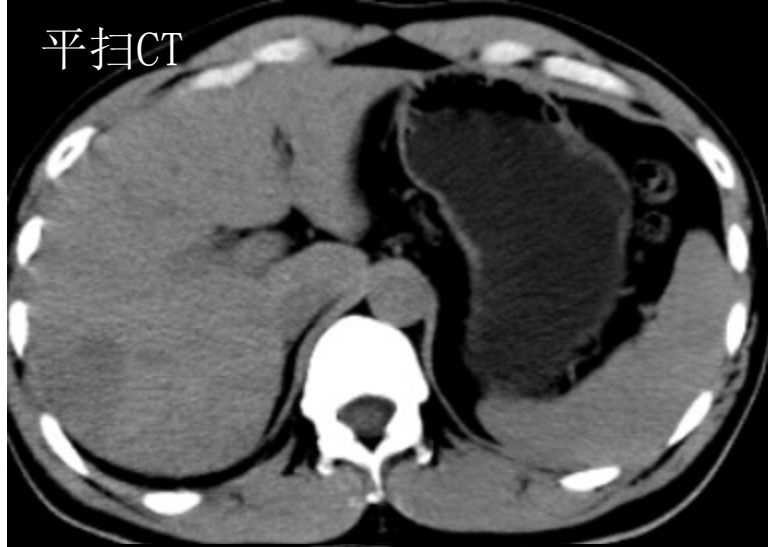
增强实质期



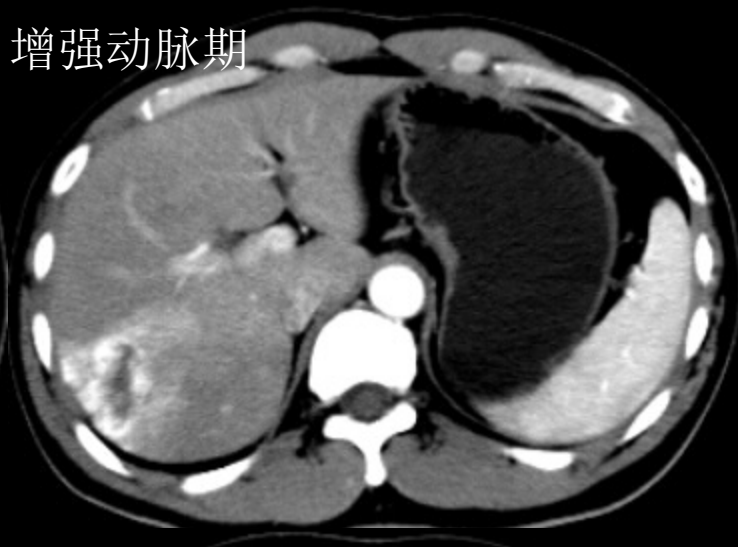
病例2，男，35岁，
体检发现肝肿块

肝右后叶局灶性结节增生

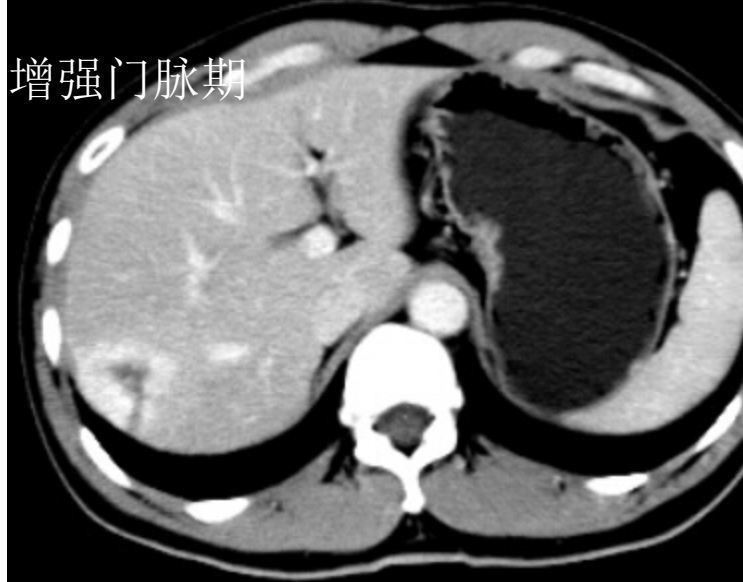
平扫CT



增强动脉期



增强门脉期



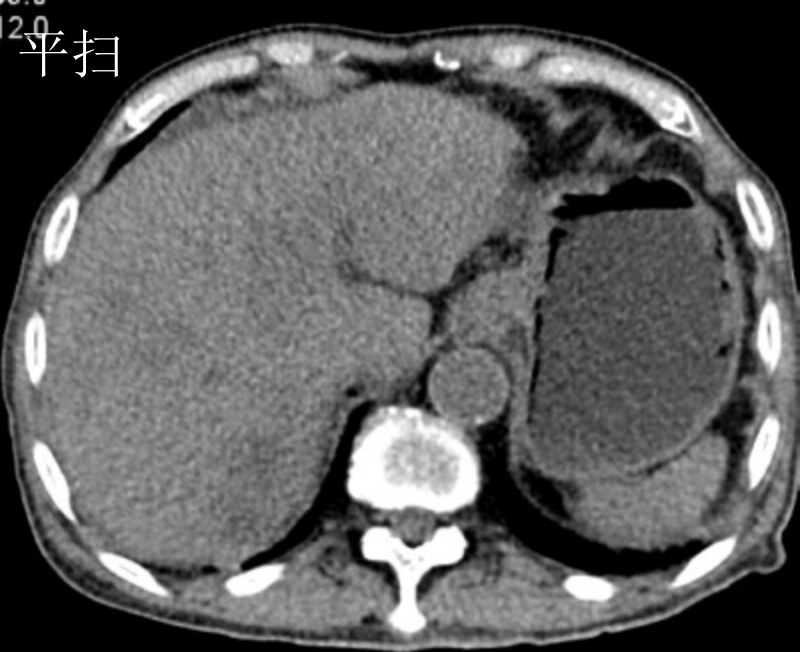
增强实质期



病例3，女，45岁，
体检发现肝肿块

增强特点：病灶周边先强化，逐
渐向中心扩散，最后呈高密度

肝右后叶海绵状血管瘤



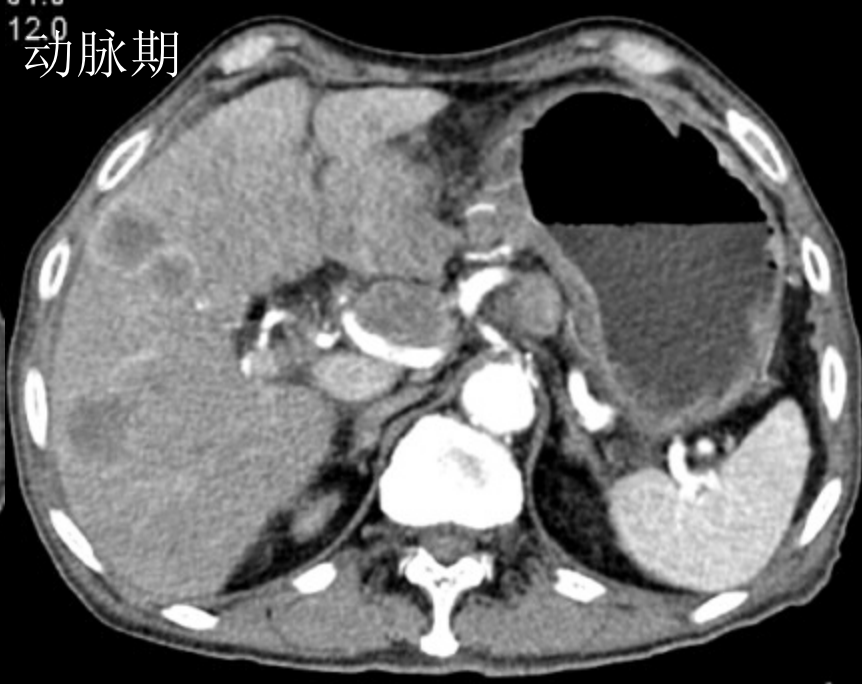
男，85岁，胃癌肝转移。432960



12.0
平扫



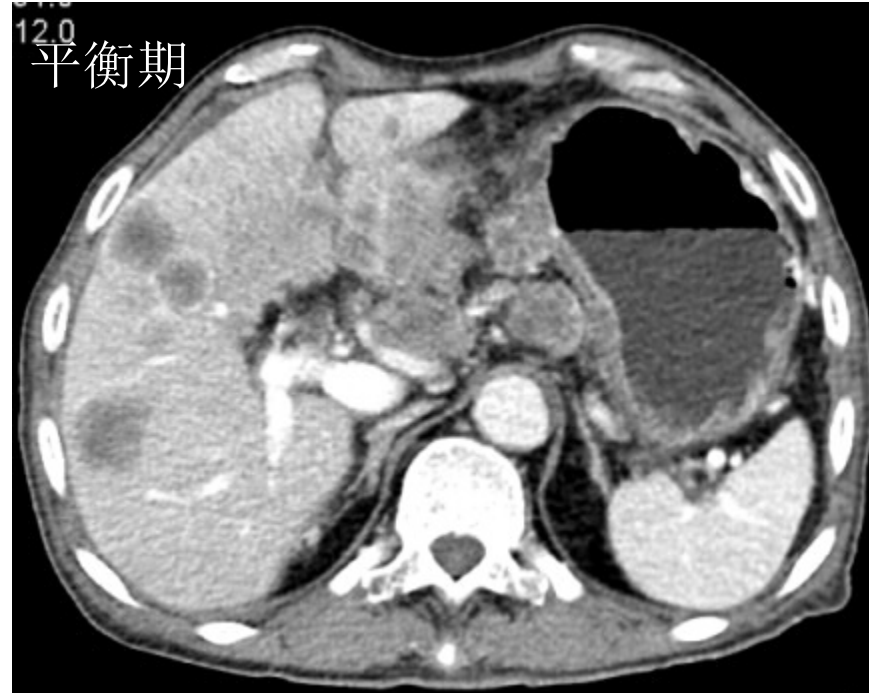
12.0
动脉期

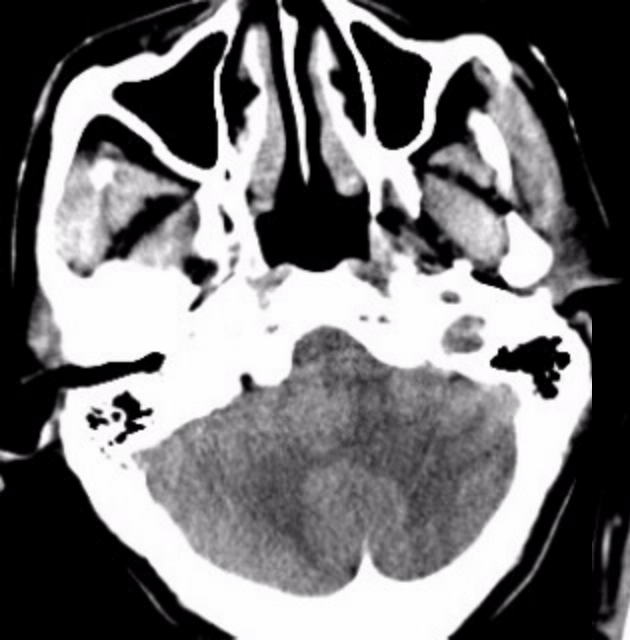


12.0
门脉期



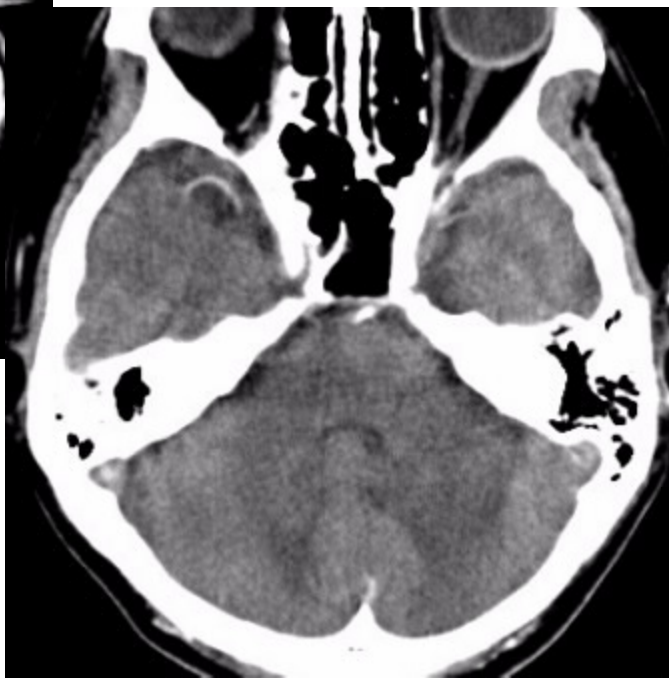
12.0
平衡期





CT平扫

动脉期

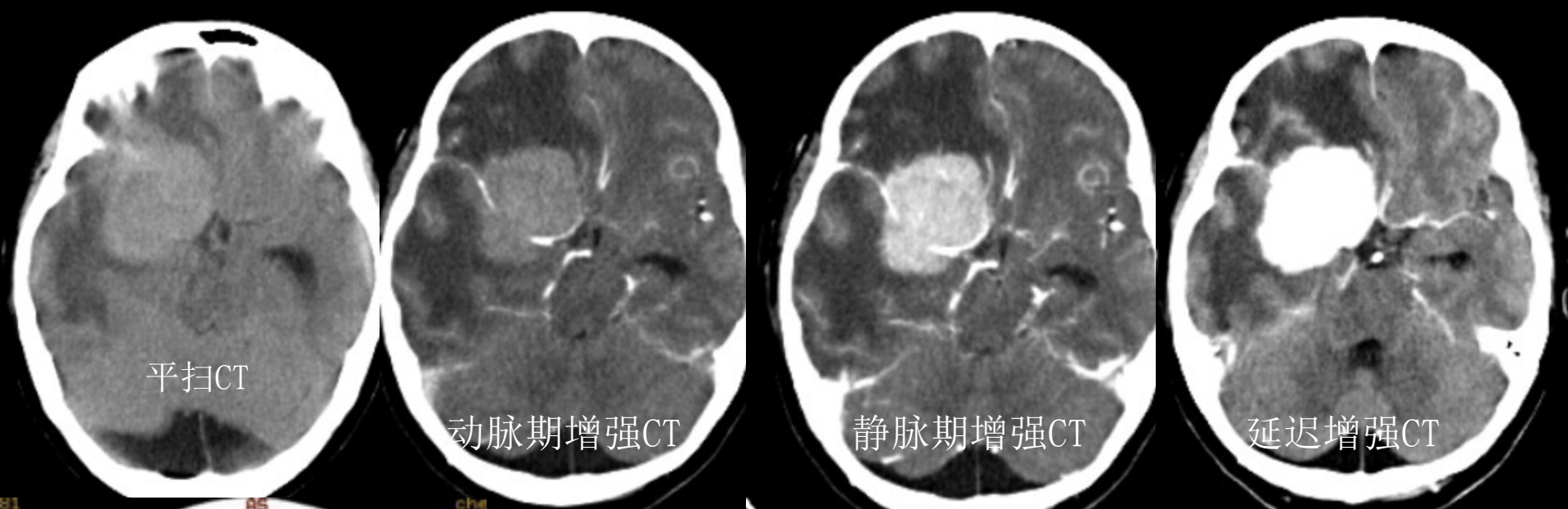


小脑蚓部肿块
延迟均匀强化

延迟扫描



男，50岁，反复头痛1年，加剧1个月。颅内多发病灶。CT平扫呈略高密度，增强后明显强化。



平扫CT

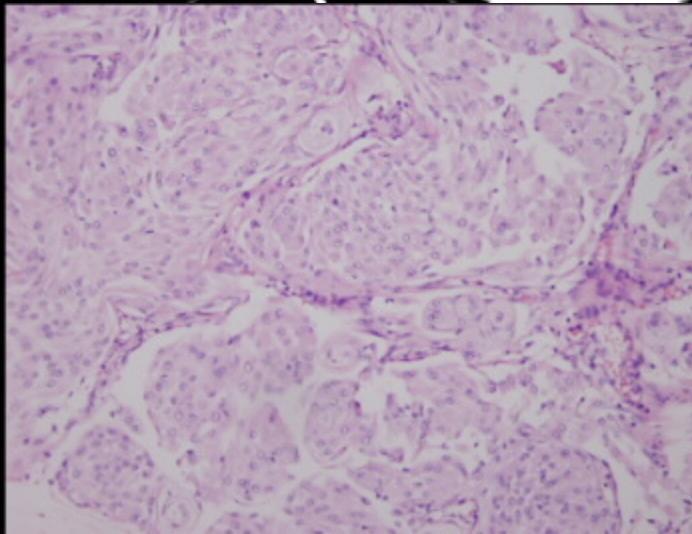
动脉期增强CT

静脉期增强CT

延迟增强CT



CTA



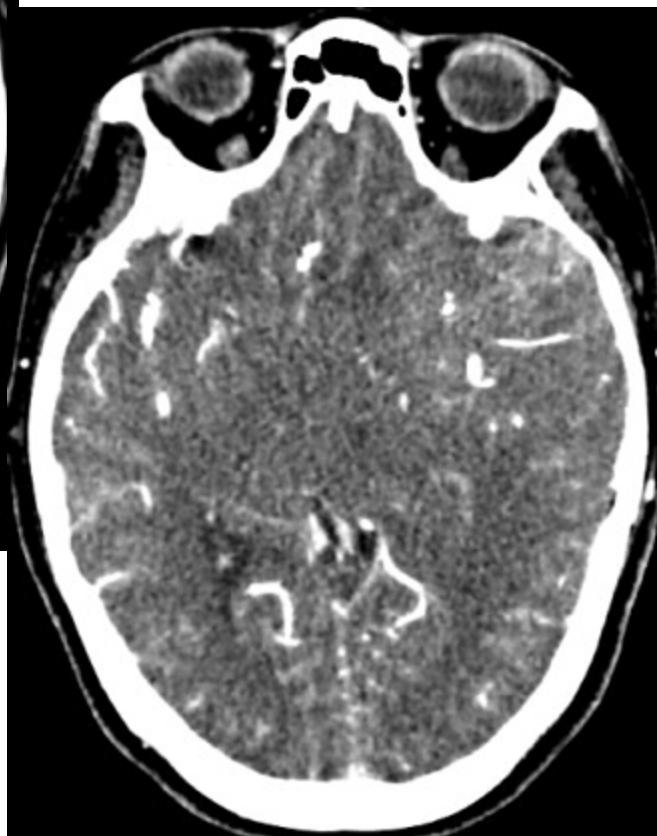
右蝶骨嵴内侧脑膜瘤

CT增强不仅可了解肿块本身的血供情况，用于诊断和鉴别诊断，而且重建CTA可以显示肿块与大血管的关系，便于手术方案制

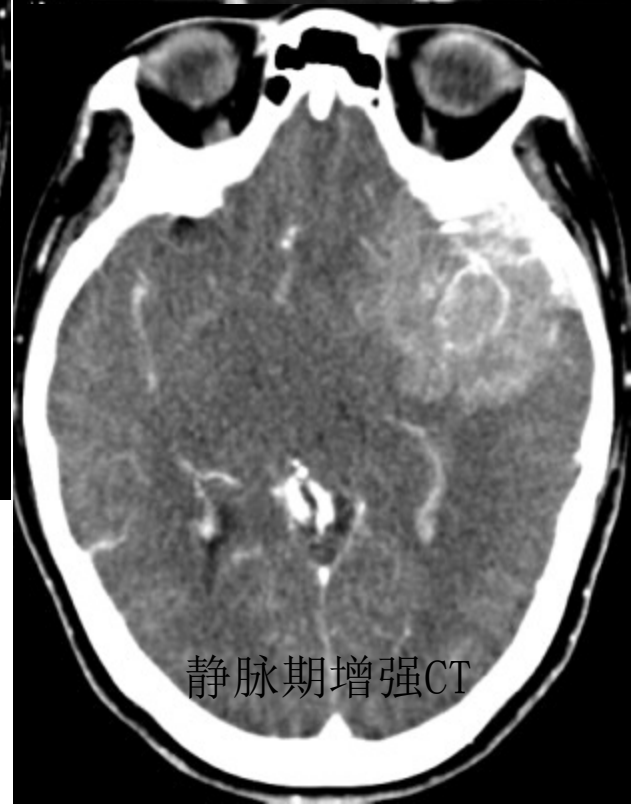
女，59岁，头痛、发热9天，



平扫CT



动脉期增强CT



静脉期增强CT

女，54岁，头痛伴记忆力下降3月余。



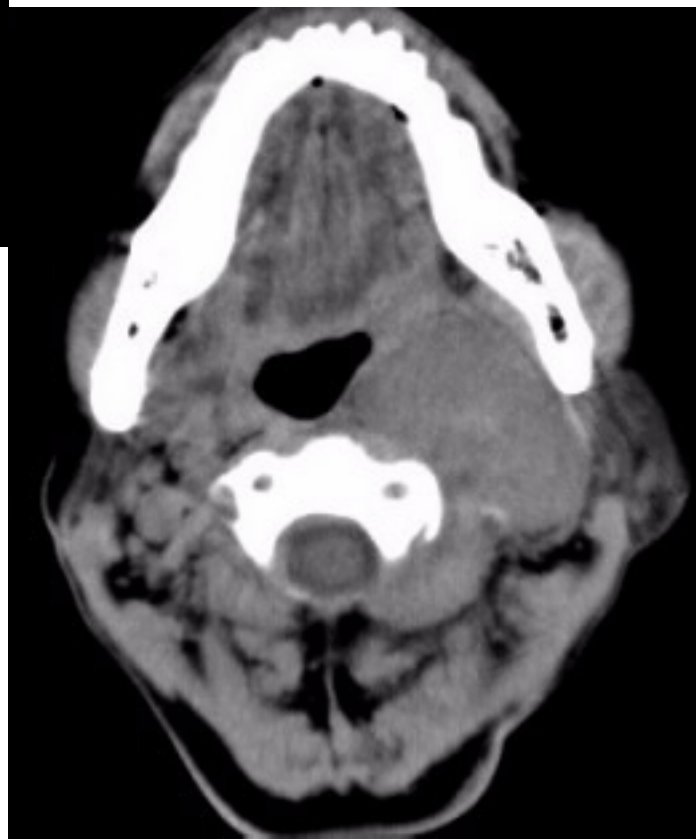
平扫CT



动脉期增强CT



静脉期增强CT





平扫CT

增强CT示肿块强化不明显，呈斑驳样强化，颈部大血管呈推移改变，未被包绕。

动脉期增强CT

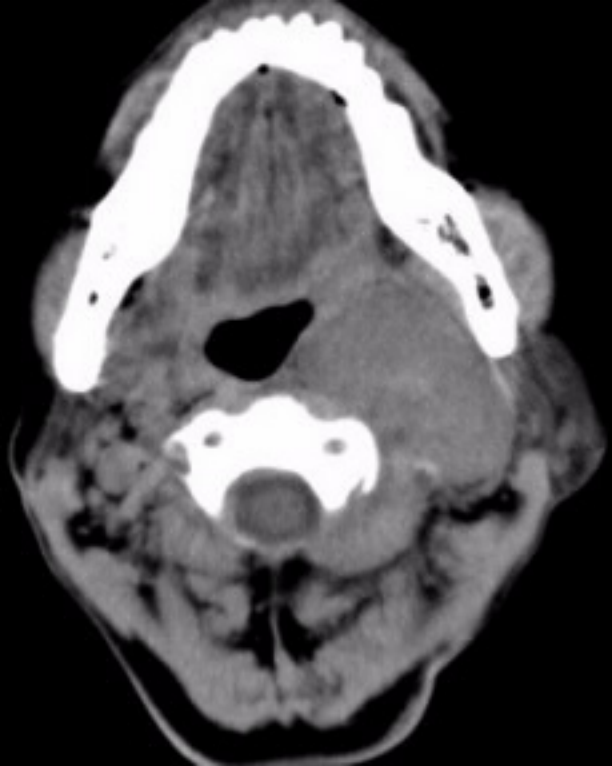


左侧颈部神经鞘瘤

男，18岁，发现左侧颈部肿物2个月。

静脉期增强CT

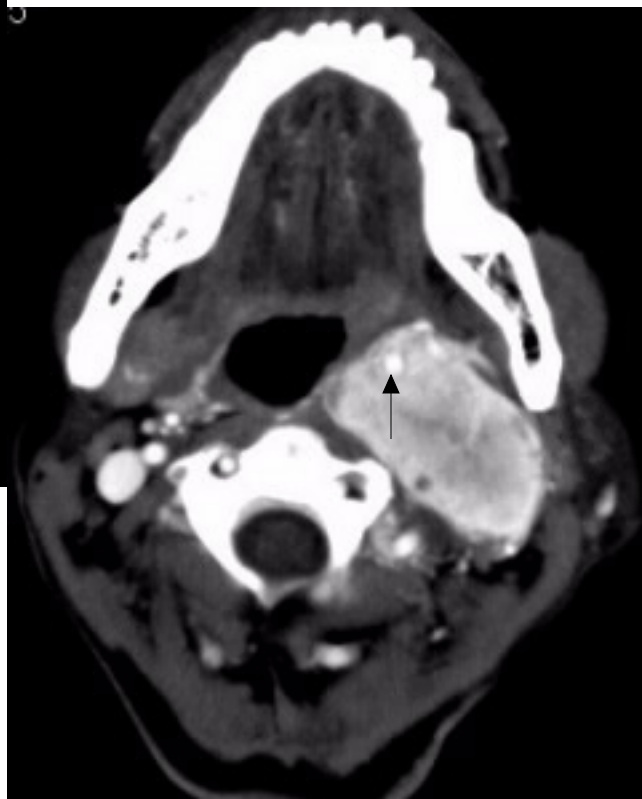




平扫CT

增强CT示肿块明显强化，颈部大血管被肿块包埋。

动脉期增强CT

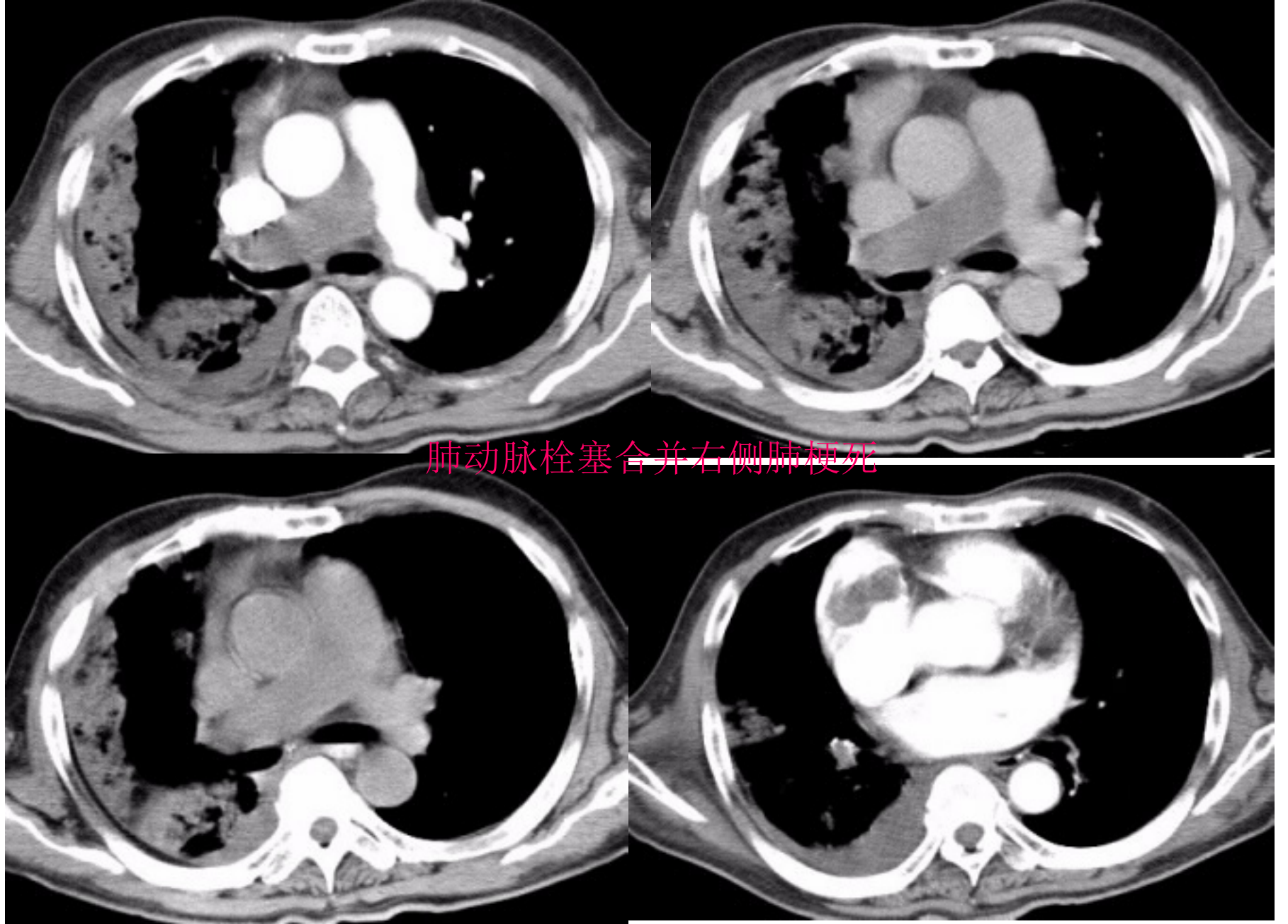


左侧颈部颈动脉体瘤

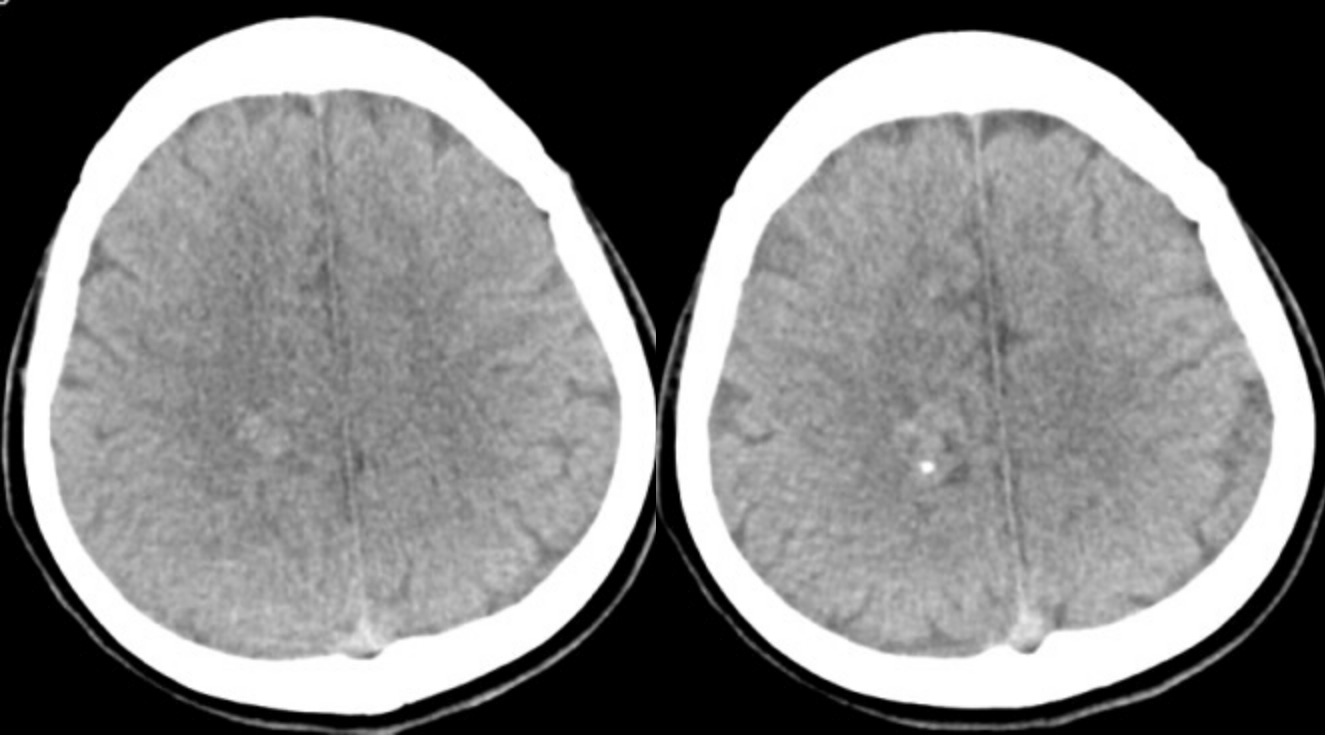
男，55岁，发现左侧颈部肿物半年。

静脉期增强薄层CT

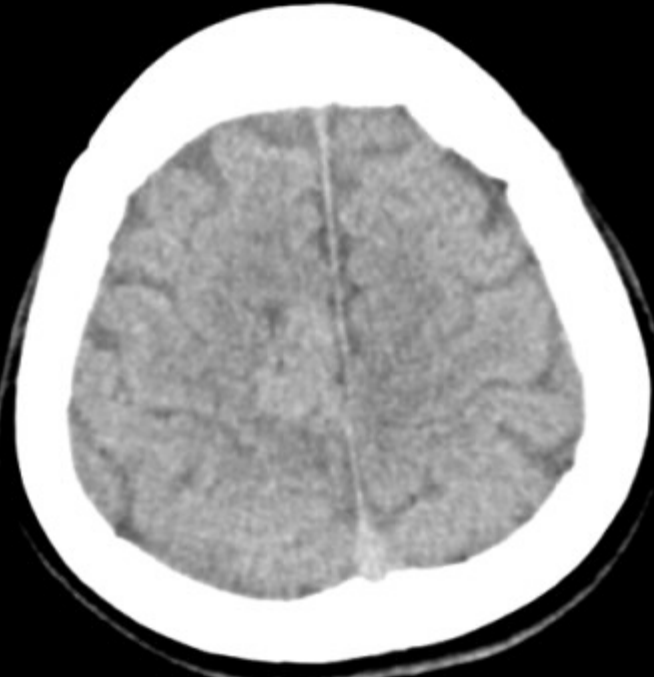
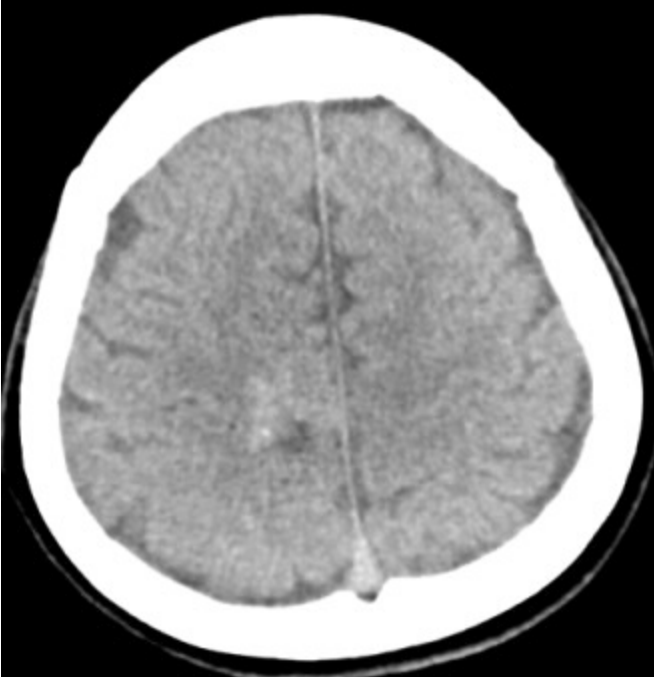




肺动脉栓塞合并右侧肺梗死的多期增强扫描



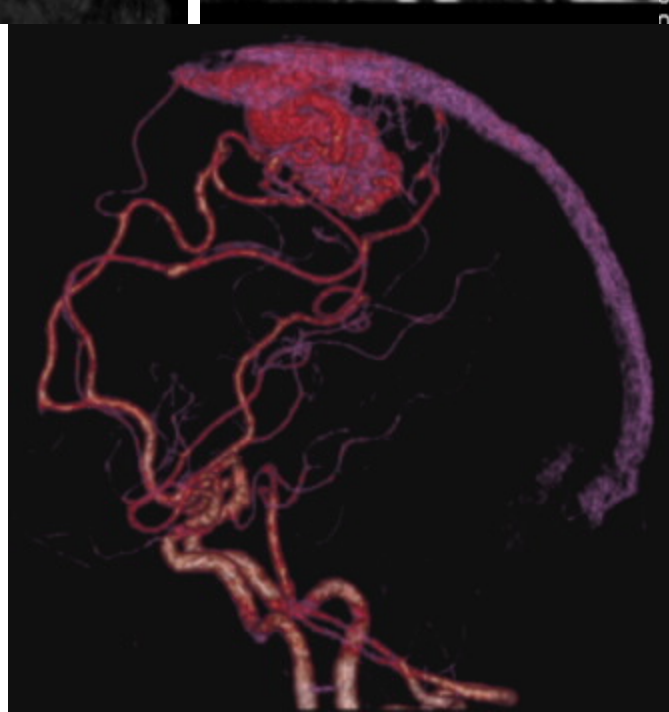
女，29岁，
癫痫发作7
年。





脑CTA清晰显示
动静脉畸形的供血
动脉、畸形血管
团及引流静脉

动脉期上矢状
窦中后部早显-
动静脉瘘

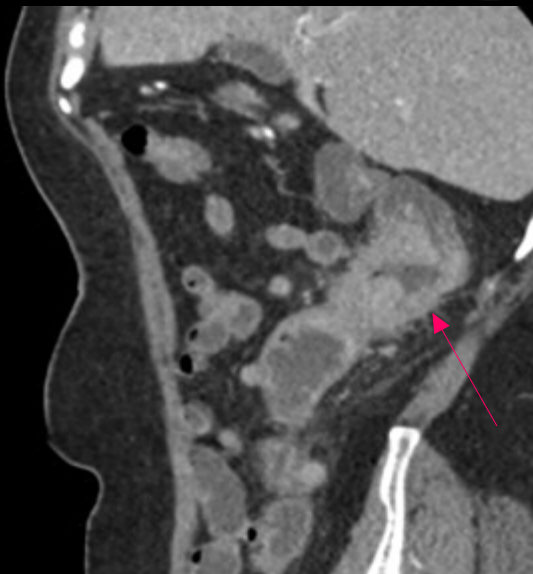




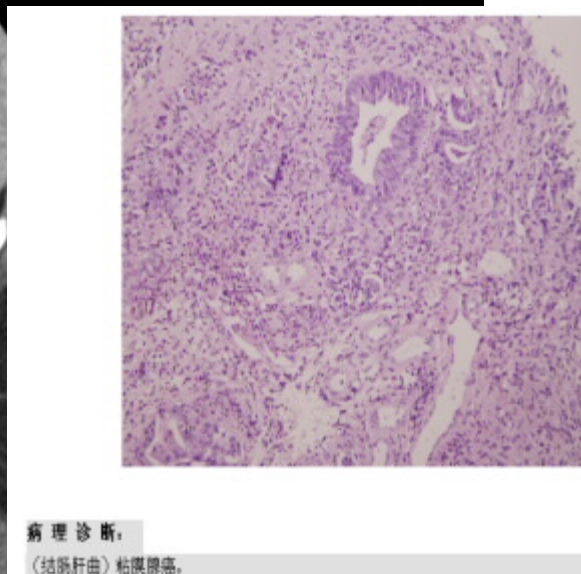
横断面图像



冠状面重建



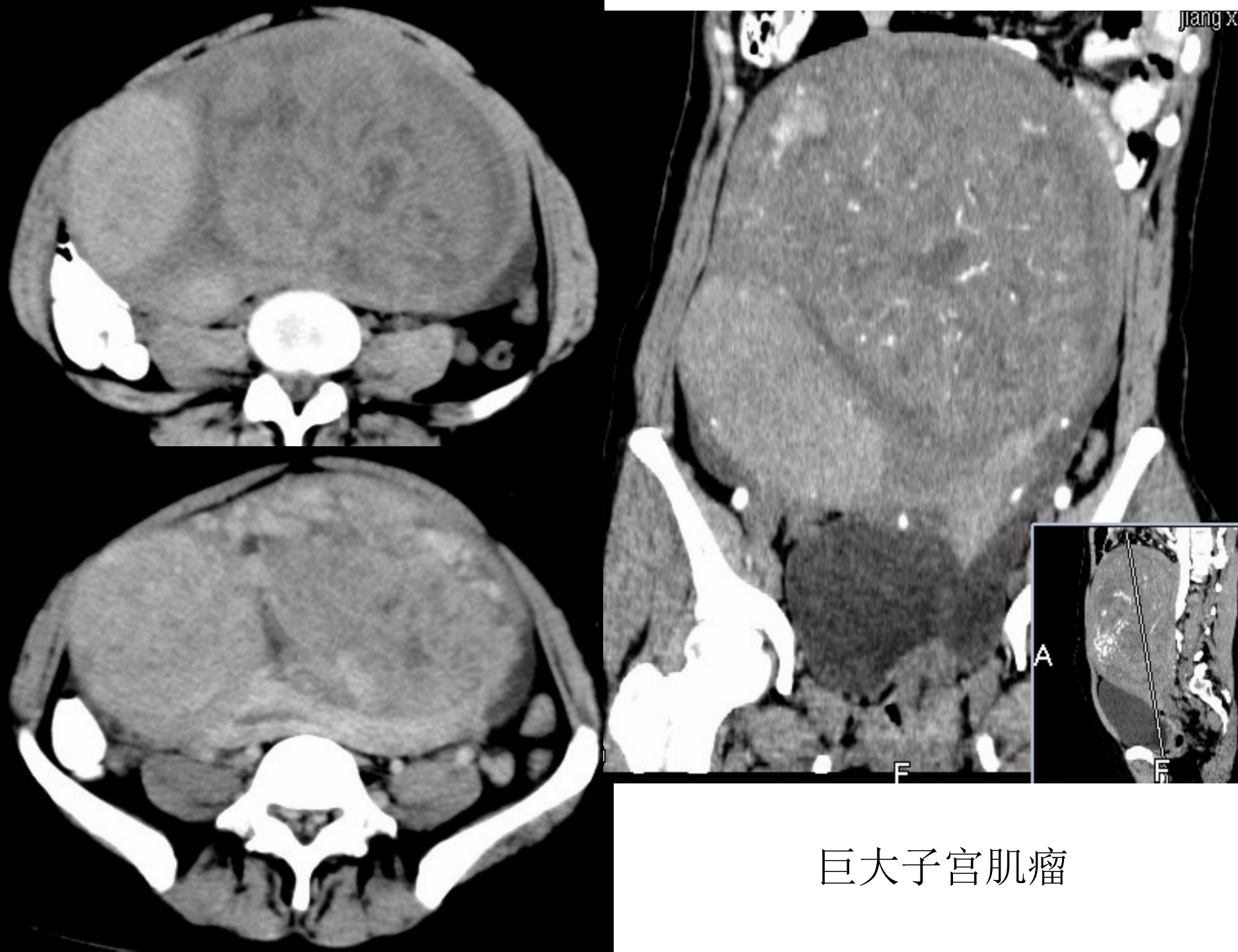
矢状面重建



病理诊断：
(结肠肝曲) 粘膜腺癌。

升结肠癌

多平面重建可以更加清晰显示病灶范围及与邻近结构关系，便于治疗计划制定



巨大子宫肌瘤



多平面重建可以清晰显示肿块与肾脏的关系，及正常肾脏残余量，指导手术方案的制定。

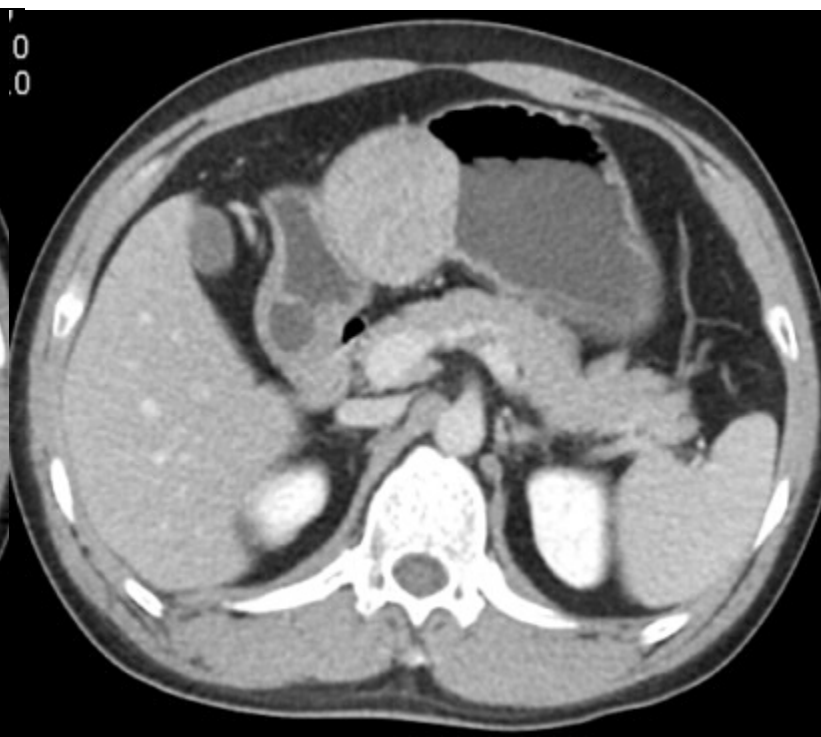
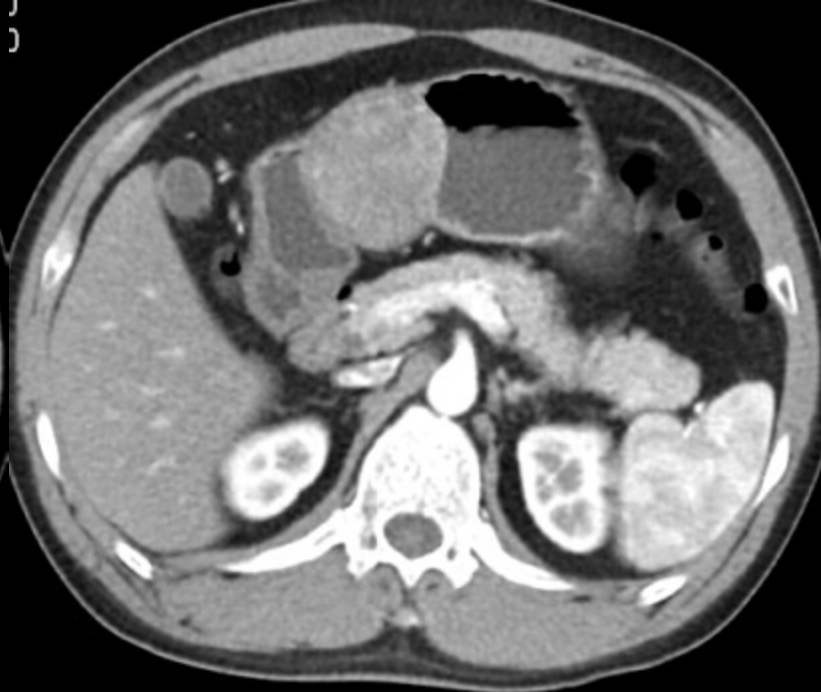
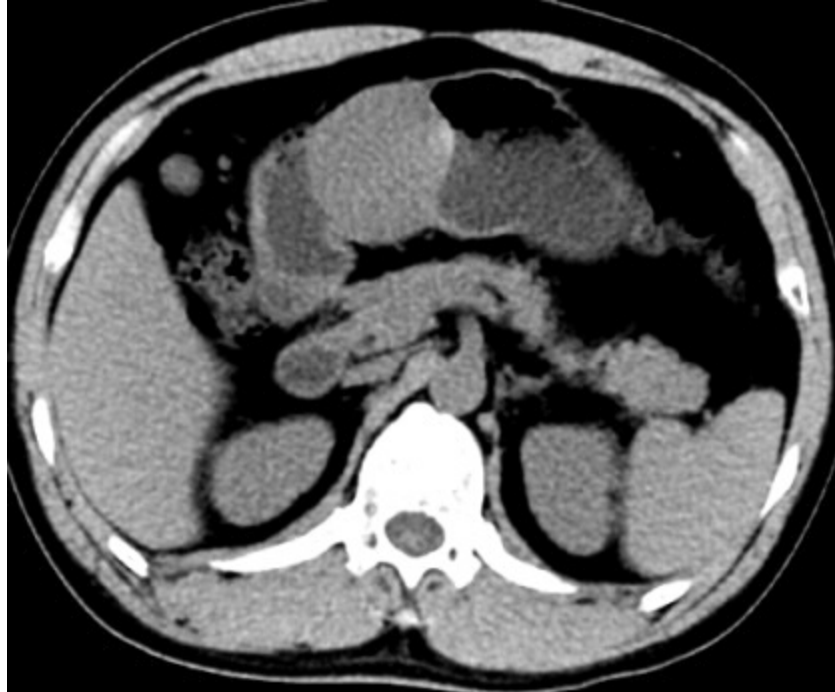
冠状面重建

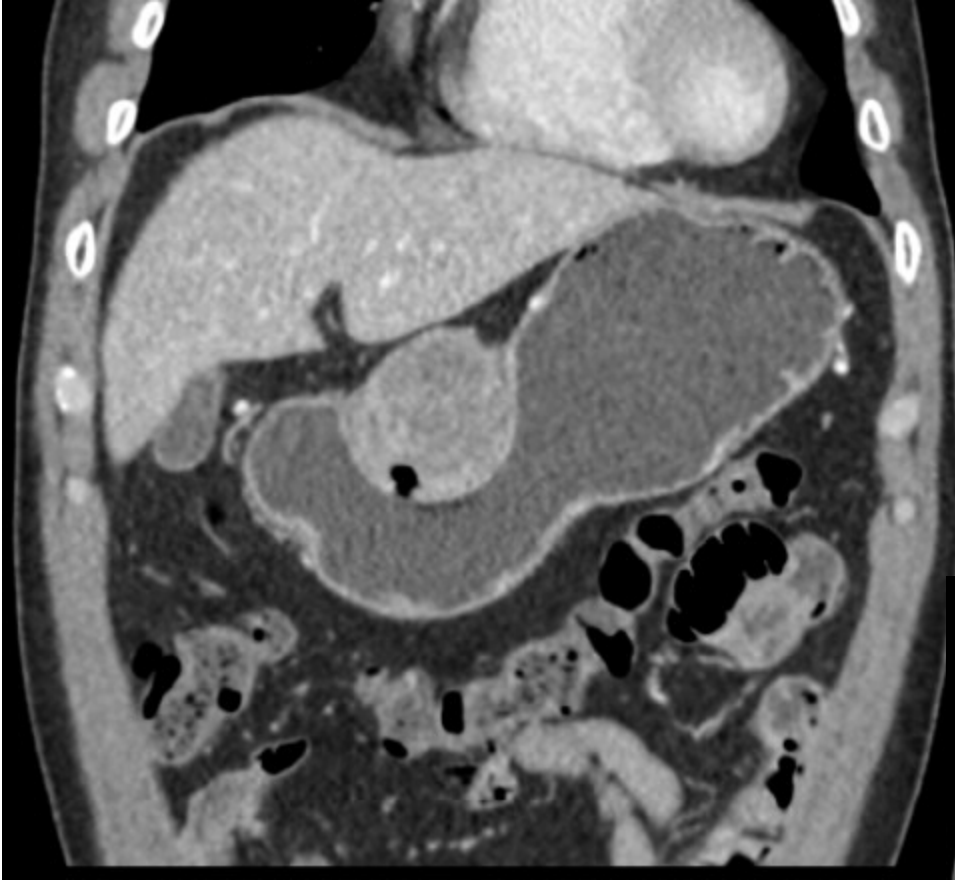
矢状面重建

横断面图像

左肾肾母细胞瘤







冠状面重建



矢状面重建

谢 谢!