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个案与短篇

CTA 诊断腹部创伤性动脉瘤合并动静脉瘘 1 例

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[**关键词**] CT 血管造影;创伤性动脉瘤;静脉瘘
[**中图法分类号**] R826.61 [**文献标志码**] B

1 临床资料

患者,男性,19 岁,因"活动后胸闷、气促伴腹胀 4 个月"于 2011 年 9 月 25 日入我院。平素体质良好,无特殊疾病史,半年前有腹部刀伤的病史,伤后曾经接受肠管吻合术。4 个月前逐渐出现胸闷、气促伴腹胀以及左侧下肢浮肿。院外诊断为结核性多浆膜腔积液,经抗结核治疗 4 个月效果不佳,先后引流腹腔积液 55 kg。体格检查:生命体征尚平稳,两肺呼吸音减弱,无啰音,心音低钝,心率 110 次/min,左下腹听诊可闻及喷射样血管杂音。左侧下肢肿胀。胸部正位片,左侧肋膈角变钝,心影明显增大,成烧瓶状。初步诊断为:①结核性多浆膜腔积液?②扩张型心肌病并心衰?

入院后行腹部增强 CT 检查,腹部 CT 血管造影(CTA)。使用荷兰飞利浦公司 128 排 VCT,螺旋扫描模式,管电压 120 kV,管流电 385 mA,扫描层厚/层距 0.625 mm。采用自动追踪触发扫描法,注入非离子型造影剂碘海醇(350 mg/mL) 85 mL;并追加生理盐水 30 mL。采用 180°定位扫描,扫描范围包括整个腹部,屏气扫描完成检查。动脉期25 s,静脉期 47 s,延迟期约 120 s。对图像进行常规 5 mm 重建,静脉期增加冠状 5 mm 重建。对动脉期进行最大密度投影(MIP)、多平面重组(MPR)、容积再现(VR)后显示:下腔静脉、髂总静脉、髂内外静脉等早期显影,下腔静脉及左侧髂总静脉且明显扩张。右侧髂总动脉起始部扩张呈球样,压迫左侧髂总静脉,右侧髂总动脉-下腔静脉可见瘘口,大小 10.2 mm(图 1、2)。CTA 拟诊为右侧髂总动脉瘤合并下腔静脉瘘。DSA 显示大量造影剂从右髂总动脉直接流入下腔静脉,证实诊断无误。治疗:经 DSA 引导腹主动脉、髂总动脉覆膜支架植入术。腹膜支架植入后下腔静脉及左侧髂总静脉均未再显影,提示瘘口被封闭(图 3)。植入支架第 6 天,患者早期置入的腹部引流管未再流出腹腔积液,患者胸闷、心悸腹胀等症状基本消失。复查胸片提示心影较入院时明显缩小,患者顺利出院。

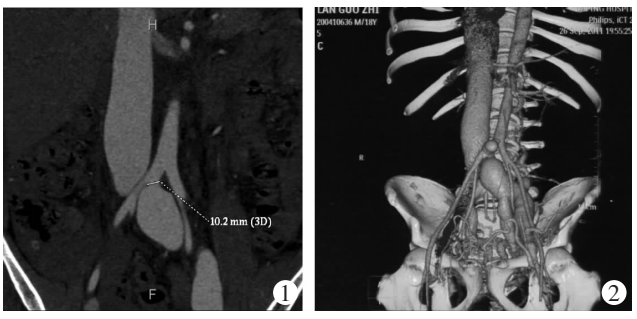


图 1 CTA 显示患者下腔静脉和髂总动脉

图 2 腹部动脉期 VR 重建 *右髂总动脉瘤形成,并压迫左侧髂总静脉*

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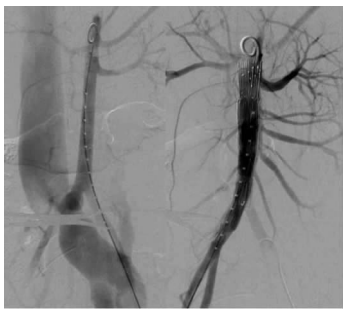


图3 腹主动脉DSA造影表现 大量造影剂进入下腔静脉和左侧髂总静脉(左),带膜支架植入腹主动脉及右侧髂总动脉后造影剂未再进入下腔静脉(右)

2 讨论

动静脉瘘是动静脉血管之间形成的异常交通,高压动脉血直接进入静脉血管导致一系列的临床病理变化[1]。创伤性动脉瘤合并动静脉瘘是动脉或静脉损伤后的后期表现,属少见的外伤性血管异常病[2]。常见原因有贯通伤、挤压伤、介入术后等。目前诊断动静脉瘘的方法有血管造影术(DSA)、多普勒超声成像、MRI、CTA等[3-4]。多普勒超声诊断动静脉瘘具有无创、简便易行,准确率较高的优点[4]。而DSA被认为是诊断本病的"金标准",但在造影中可能发生瘤体破裂或血栓脱落栓塞,风险较大,与DSA相比,CTA不仅可以了解病变的范围、形态、部位、瘘口的大小、瘤腔的显影情况、有无附壁血栓、是否合并其他血管病变等,还可清晰显示病变与周围组织和血管的关系,对于手术方案的制定以及手术风险的评估都非常重要[2]。

本例患者为刀刺伤右髂总动脉,形成动脉瘤。动脉瘤突入下腔静脉并破裂,形成动静脉瘘。动脉血直接流入下腔静脉,使之压力增大、扩张,右心逐渐衰竭,伴随胸腔和腹腔积液的产生。如遇类似患者,临床医师应该对患者的病史,如外伤史、手术史等进行较为详细的描述。患者接受检查前,放射科技术员应仔细阅读申请单,采取针对性的检查方式,在常规横断位、冠状位重建的基础上,对可疑病灶增加MIP、MPR、VR重建,这样才能及时发现问题和明确诊断,为临床提供帮助。

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