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·病例报道·

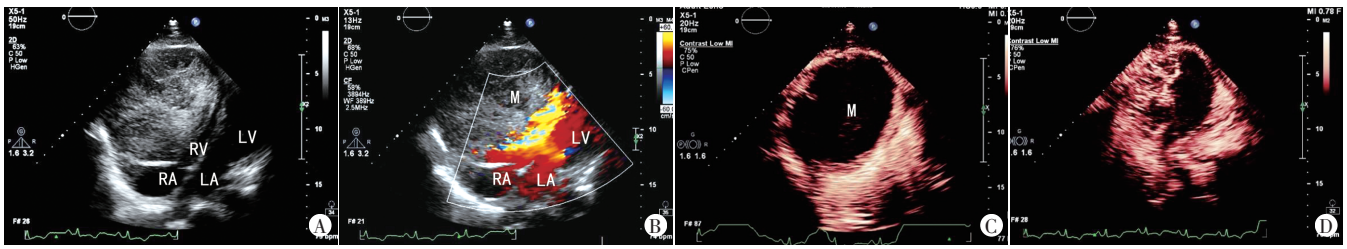
Contrast-enhanced ultrasonic manifestations of anterior mediastinal extraskeletal osteosarcoma:a case report

前纵隔骨外骨肉瘤超声造影表现1例

严定芳　谢　超　贺　赟　张文君

[中图法分类号]R445.1　　[文献标识码]B

患者男,71岁,纵隔肉瘤术后11个月余,因"呼吸困难"就诊。胸部平扫+增强CT检查:前下纵隔肉瘤术区见一巨大肿块影,边界不清,较大层面大小约11.0 cm×10.0 cm×9.4 cm,内密度不均,明显不均匀强化,边缘强化为主;心包少量积液,双侧胸腔少量积液。CT提示:前下纵隔肉瘤术后复发。经胸超声心动图检查:前纵隔见一大小约11.7 cm×11.0 cm×9.8 cm不均质肿块(图1A),边界不清,形态规则,内部回声不均匀,大部分呈低弱回声区,右心明显受压,右心腔狭小;CDFI于肿块内未探及明显血流信号(图1B)。结合病史超声提示:前纵隔恶性肿瘤术后复发可能。为进一步明确肿块性质及其与心脏关系,行左心声学造影检查:纵隔见一巨大肿块,边界不清,形态规则,内呈不均匀性增强,以边缘增强为主,中心见大片状无增强区(图1C、D)。左心声学造影提示:前下纵隔肉瘤术后复发,肿瘤坏死区较大。后于全麻下行纵隔肿瘤切除术,术中见:肿块巨大,范围由右室流出道水平至膈肌水平,双侧胸膜至膈神经水平均累及,与心脏界限不清(图2A),无法判定心肌是否受侵,切开右室面上方肿块,其内见大片出血坏死(图2B)。术后组织病理学检查:富于巨细胞的肿瘤组织伴大片坏死,可见脉管内瘤栓(图2C)。病理诊断:纵隔高级别肉瘤伴大片坏死,考虑骨肉瘤,可见脉管内瘤栓。免疫组化检查:CD34(-),Ki-67(70%+),



A:二维超声示前纵隔巨大不均质肿块,边界不清,形态规则,内大部分呈低弱回声,右心腔明显受压;B:CDFI示前纵隔肿块内未探及明显血流信号;C、D:左心声学造影示前纵隔肿块边缘成分不均匀性增强,中心大片无增强

图1　前纵隔骨外骨肉瘤常规超声及超声造影图(RV:右室;LV:左室;RA:右房;LA:左房;M:肿块)

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作者单位:442000　湖北省十堰市,湖北医药学院附属太和医院超声医学科
通讯作者:张文君,Email:pulushi68@126.com

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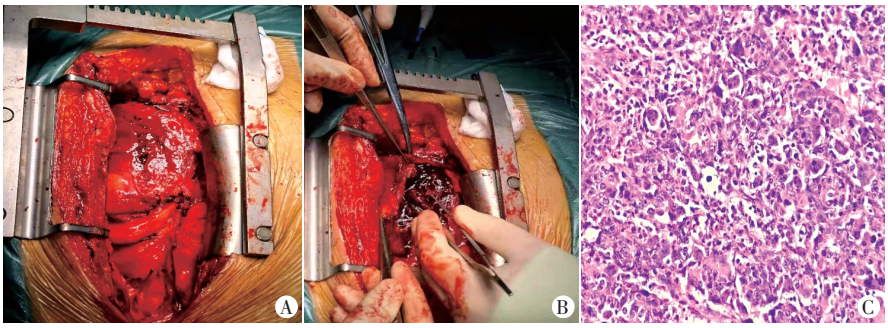

A：术中见肿块巨大，双侧胸膜至膈神经水平均累及，与心脏界限不清；B：切开右室面上方肿块，其内见大片出血坏死；C：病理图示富于巨细胞的肿瘤组织伴大片坏死，可见脉管内瘤栓（HE染色，×40）

图2 前纵隔骨外骨肉瘤术中大体观及病理图

STAT6(-)，SATB2(+)，CD68（多核巨细胞+），CD163（部分+），SMA（部分+），CK(P,-)。患者术后常规行抗感染治疗，未行放、化疗，随访半年未见肿瘤复发和远处转移。

讨论：原发纵隔骨外骨肉瘤（extraskeletal osteosarcoma，ESOS）是一种罕见的起源于间充质细胞并向骨、类骨及软骨分化的软组织恶性肿瘤，约占所有软组织肉瘤的1%~2%，占所有骨肉瘤的2%~4%[1-2]。纵隔ESOS平均发病年龄约50岁[3]，发病机制目前尚未明确，可能与肺部并发非结核分枝杆菌感染有关[4]。前纵隔ESOS患者早期常无阳性临床体征，多因进行性增大的软组织肿块伴胸闷、咳嗽、呼吸困难而就诊，本例纵隔肉瘤术后11个月因呼吸困难发现复发。本文首次报道前纵隔ESOS的超声及超声造影表现，二维超声示肿块形态规则，边界不清，回声不均匀；超声造影表现为肿块内部呈明显不均匀增强，周边组织实性成分明显增强，增强程度不低于邻近心肌且与邻近心肌分界不清，中心见大片状无增强区，提示肿瘤为多血管肿瘤并中心大片状液化坏死可能。本例手术病理诊断为ESOS，为高度恶性肿瘤，与超声造影表现相符。

纵隔ESOS容易局部复发及发生远处转移，最常见的转移部位为肺及邻近软组织，患者5年生存率24%~46%，合并转移的纵隔ESOS患者平均生存期仅为8个月[5]。本例前纵隔ESOS在第一次手术11个月后再次复发，且术中探查发现双侧胸膜至膈神经水平均受侵犯，具有高度恶性的生物学行为。

总之，虽然纵隔ESOS超声表现尚无特征性，但常规超声检查方便、快捷，且超声造影能实时反映肿块组织内血供分布情况，仍可作为评估其血供及远期疗效随访的重要影像学手段；当纵隔内出现非转移性的软组织肿块，图像上可见点状或片状钙化斑，且肿块未与周围骨骼相连时需警惕纵隔ESOS的可能。

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