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· 病例报道 ·

## Right ventricular diverticulum diagnosed by transthoracic echocardiography combined with contrast-enhanced echocardiography: a case report 经胸超声心动图联合心脏超声造影诊断右室憩室 1 例

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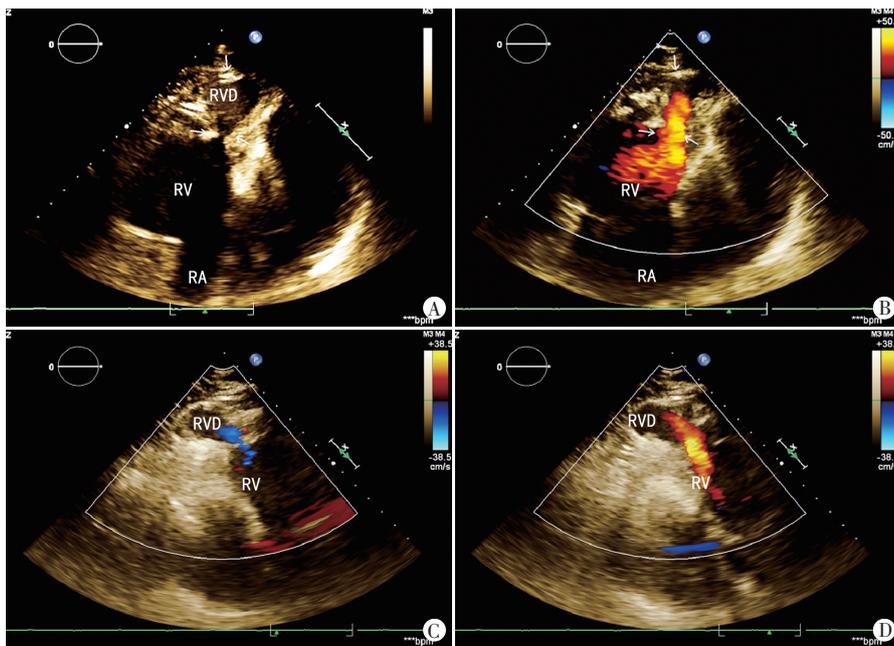
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患者男,60岁,因“反复胸闷、气促1年余,加重1个月”就诊,既往高血压病史3年,规律服药,血压控制可。体格检查:心率84次/min,血压138/86 mm Hg(1 mm Hg=0.133 kPa),心浊音界扩大,三尖瓣区可闻及3级收缩期杂音。心电图提示:心房扑动,完全性右束支传导阻滞。经胸超声心动图检查:右室心尖处“囊袋样”无回声区向心尖凸起,颈部宽约6.5 mm,深约37.0 mm,与右室相通,无回声区周边可见心肌组织与右室心肌相连续;CDFI于舒张期见右室腔内血流进入无回声区内,收缩期见无回声区血流进入右室内(图1)。超声心动图提示:右室心尖处无回声区,考虑右室心尖部憩室形成,建议行心脏超声造影进一步检查。左心声学造影检查:右室心尖处局部呈“囊袋样”向外凸出,大小约35 mm×25 mm,造影剂充盈其内,心内膜显示清晰,其周围可见心肌组织。左心声学造影提示:右室心尖部憩室形成(图2)。冠状动脉造影检查:左主干未见狭窄,左前降支中段狭窄85%,回旋支管壁欠规则(第二钝缘支狭窄70%~80%),右冠状动脉近段狭窄50%。冠状动脉造影提示:冠心病,3支血管病变。后行冠状动脉搭桥、三尖瓣置换及临时起搏导线安置术,术中发现右室心尖部见一大小约20 mm×25 mm憩室,临床诊断为右室心尖部憩室。

讨论:心脏憩室是一种罕见的先天性心脏畸形,由于胚胎时期心内膜发育异常,局部心肌组织减少或缺失,导致房室

壁薄弱膨出<sup>[1]</sup>。心室憩室按组织类型可分为肌型憩室和纤维型憩室,其中肌型憩室与周围心室壁同步舒缩运动,纤维型憩室存在运动障碍<sup>[2]</sup>。该病好发于心室心尖部,左室发病多于右室,发病率分别约3.4%和0.6%<sup>[2]</sup>,多见于儿童,常伴有其他先天性心脏畸;成人较少见,多为孤立性憩室<sup>[3]</sup>,常无明显临床症状,多于超声心动图检查时偶然发现。本例为老年患者,因胸闷、气促就诊,超声心动图检查发现右室憩室,左心声学造影显示其内见心肌



A、B:心尖部无回声区,与右室相通(箭头示);C、D:舒张期见右室腔内血流进入无回声区内,收缩期见无回声区血流进入右室内。RA:右房;RV:右室;RVD:右室憩室

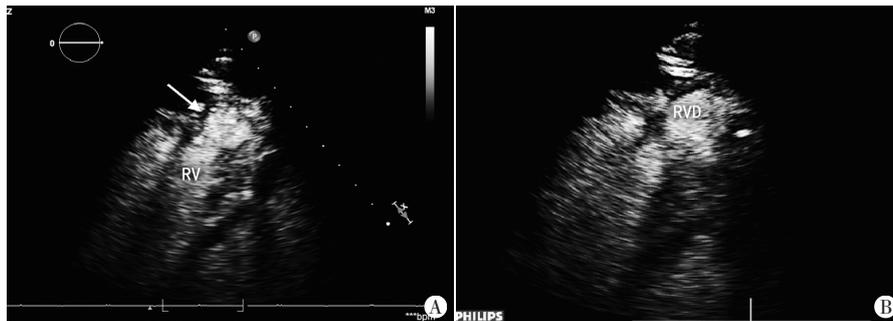
图1 本例患者经胸超声心动图表现

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A、B:造影剂向“囊袋状”无回声区填充(箭头示),大小约35 mm×25 mm,心内膜边缘及心肌显示清晰,周边可见心肌组织与右室心肌相连续。RV:右室;RVD:右室憩室

图2 本例患者左心声学造影表现

及心内膜组织,与心室壁同步收缩和舒张,未合并其他心脏畸形及憩室引起的相关并发症,考虑为右室孤立性肌型憩室。

超声心动图具有实时动态成像、无辐射、简便、经济等特点,是心脏憩室的首选检查方法。本例超声心动图表现为典型的狭窄颈部及囊带状突起,并与右室腔相通,憩室壁与右室壁同步运动,收缩期见憩室内血流进入右室,舒张期右室内血流流入憩室,与 Yao 等<sup>[4]</sup>报道的肌型憩室表现相似。心脏超声造影较常规超声心动图能更清晰显示心内膜及心肌组织,评估室壁运动及厚度,提高对憩室、肿瘤、结构异常等心脏疾病的诊断准确率<sup>[5]</sup>。本例憩室处无节段性室壁运动异常、运动减弱及回声增强等心肌梗死表现,左心声学造影进一步证实憩室处心肌

连续性完整,未见断裂。本病需与室壁瘤、假性室壁瘤、心室疝、心包囊肿等鉴别,检查时可结合病史及多种检查方法进行诊断,特别是超声心动图联合心脏超声造影可清晰显示憩室处心内膜及心肌的结构,有助于憩室的诊断。对于无症状及有并发症的心脏憩室患者,应密切追踪观察,若合并血栓形成、心脏破裂和瓣膜异常等心脏疾病,应根据个体化差异,采取积极的诊疗措施,以降低致病率及提高存活率。

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