

## 2 型心肌梗死的诊疗策略

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**【摘要】** 与 1 型心肌梗死(T1MI)患者相比,2 型心肌梗死(T2MI)患者的住院率和死亡风险更高。但目前对 T2MI 的诊断、风险分层和治疗策略尚无统一标准。该文主要介绍 T2MI 患者的临床特征、长期预后及诊疗策略。

**【关键词】** 2 型心肌梗死;临床特征;长期预后;诊疗策略

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国际心肌梗死指南将心肌梗死分为 5 型<sup>[1]</sup>,1 型心肌梗死(T1MI)是指由冠状动脉急性血栓形成导致的心肌坏死;2 型心肌梗死(T2MI)是指在无冠状动脉粥样硬化斑块破裂情况下,由心肌耗氧量增加或氧供减少导致的心肌坏死。多项研究表明 T2MI 患者的全因死亡率和心血管死亡率较 T1MI 更高<sup>[2-5]</sup>。

### 1 T2MI 的诊断及鉴别诊断

心肌损伤时,急性心肌缺血是诊断 T2MI 的必要条件。急性心肌缺血时有缺血症状如胸闷、胸痛、濒死感等,缺血性心电图改变,存活心肌丢失或局部壁运动异常的影像学证据,以及心肌肌钙蛋白动态上升和(或)下降<sup>[1]</sup>。一项观察性队列研究纳入 1 640 例因超敏肌钙蛋白(hs-cTn)持续升高而急诊入院的患者,其中 T1MI 患者 74 例(4.5%),T2MI 患者 103 例(6.3%),心肌损伤患者 245 例(15%)。T1MI 患者中出现典型心肌缺血症状比例高于 T2MI 患者(97%对 83%)<sup>[6]</sup>。而 T2MI 出现呼吸困难或其他非典型症状(除胸痛以外的其他症状)的概率是 T1MI 患者的 3 倍<sup>[7-8]</sup>。同时,T2MI 患者血清肌钙蛋白(cTn)绝对值和变化范围较 T1MI 患者更低<sup>[9-10]</sup>,出现新的缺血性心电图变化的比例(51%对 74%)、影像学显示存活心肌丢失或区域室壁运动异常的证据(11%对 64%)较 T1MI 均明显减少<sup>[11]</sup>,这增加了 T2MI 的诊断难度,容易误诊或漏诊。

冠状动脉造影是诊断冠状动脉硬化性心脏病(冠心病)的“金标准”。冠状动脉造影下可明显观

察到 T1MI 患者因动脉粥样硬化斑块破裂导致的血栓形成或冠状动脉闭塞。T2MI 是在冠状动脉固定狭窄基础上发生的心肌氧供需失衡(如冠状动脉内皮功能障碍、冠状动脉痉挛)或发生非粥样硬化性冠状动脉夹层壁内血肿,因此患者的冠状动脉内无血栓<sup>[1]</sup>。通过其他侵入性血管影像学技术如血管内超声光学断层成像有助于诊断。

### 2 T2MI 的临床特征及预后

T2MI 多见于老年及女性患者。流行病学显示,T2MI 患者中女性多于男性(56%对 44%),而 T1MI 患者男性多于女性(71%对 29%)<sup>[12]</sup>。研究表明,与 T1MI 患者相比,T2MI 患者年龄较大[(75.2±11.7)岁对(79.1±11.9)岁]<sup>[2,13]</sup>,且常伴有贫血、肾功能损害、心律失常等<sup>[14-15]</sup>。引起 T2MI 的常见病因为心律失常、严重心力衰竭、肺炎等<sup>[16]</sup>。

T2MI 患者冠状动脉介入治疗和药物治疗不足,可能导致预后不良。T2MI 患者的高死亡率主要归因于非心血管因素<sup>[17-18]</sup>,可能与 T2MI 患者多伴有广泛合并症且多为重症老年患者的临床特征相关<sup>[5]</sup>。Singh 等<sup>[15]</sup>对 3 829 例年轻心肌梗死患者(≤50 岁)进行 10 年的随访,研究结果提示,有心肌损伤的患者死亡率最高(45.6%),其次是 T2MI(34.2%)和 T1MI(12.0%),年轻 T2MI 患者 10 年内死亡率为 33.3%。与 T1MI 相比,T2MI 患者的全因死亡率较高,心血管预后较差。与以往研究不同,该研究主要纳入 T2MI 年轻患者,显示 T2MI 年轻患者具有较低冠状动脉疾病患病率,但存在较高心血管疾病和死亡风险。

### 3 T2MI 患者的综合管理

与 T1MI 有明确的治疗指南不同,T2MI 的最佳治疗方案仍不确定<sup>[19]</sup>。T2MI 患者接受侵入性检查

的可能性较 T1MI 患者显著降低<sup>[20]</sup>。在 1 786 例行冠状动脉血运重建的患者中, T1MI 患者占比 85. 2%, T2MI 中仅有 27 例(2. 2%)。在接受血管造影的患者中, T2MI 和非缺血性心肌损伤的患病率达 50%<sup>[21]</sup>。在二级预防管理方面, T2MI 患者较 T1MI 患者接受抗凝治疗的比例更低(阿司匹林组 79. 1% 对 96. 0%, P2Y12 抗血小板药物组 55. 3% 对 89. 1%, 他汀类药物组 60. 7% 对 80. 2%)<sup>[13]</sup>。T2MI 二级预防类药物使用率较低的原因可能是疗效不确定、合并症频发(如大出血、慢性肾脏疾病和癌症)以及潜在的冠状动脉疾病患病率差异大, 这些因素在年轻 T2MI 患者中表现更为突出。

对于 T2MI 患者, 关键的治疗措施是纠正氧供需失衡。在没有禁忌证(如心动过缓、低血压、急性心力衰竭)的情况下, 应考虑尽早使用  $\beta$  受体阻滞剂降低氧耗, 同时应及时明确心肌缺血的病因。对于已明确存在冠状动脉粥样硬化的 T2MI 患者, 可根据心肌梗死指南及时应用抗血小板、 $\beta$  受体阻滞剂、他汀类、血管紧张素转化酶抑制剂(ACEI)等二级预防药物。在无冠状动脉疾病的情况下, T2MI 的长期治疗策略仍缺乏试验数据或指南证实。一项观察性研究发现, 冠状动脉造影显示狭窄度不超过 50% 的急性心肌梗死患者中应用二级预防类药物的患者较未应用该类药物的患者心血管不良事件发生率明显降低<sup>[22]</sup>。目前尚没有明确的指南来指导 T2MI 的诊疗, 临床上积极防治危险因素可能有助于降低 T2MI 患者高心血管疾病风险。

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