

(第2版)



心力衰竭

《Braunwald 心脏病学》姊妹卷

Heart Failure

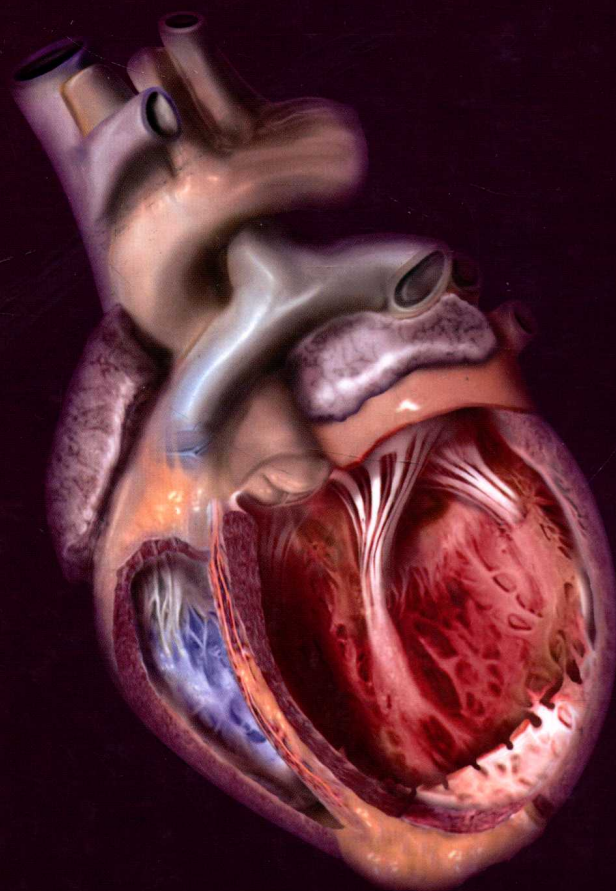
A Companion to Braunwald's Heart Disease

原著

Douglas L. Mann

主译

高炜 张幼怡



北京大学医学出版社

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心力衰竭

(Heart Failure) (充血性心力衰竭)

Heart Failure

1. Congestive Heart Failure; 2. Pump Failure

定义
Definition
病因
Cause
临床表现
Clinical Manifestation



人民卫生出版社



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Heart Failure

A Companion to Braunwald's Heart Disease

注 意

该领域的理论知识和临床实践在不断变化。随着新的研究与经验不断扩充我们的知识结构，在实践、治疗和用药方面做出适当的改动是必要或适宜的。建议读者检查相关操作的最新信息，或检查每一用药生产厂家所提供的最新产品信息，以确定药物的推荐剂量、服用方法、服用时间以及相关禁忌证。治疗医师根据对患者的了解和相关经验，确立诊断，确定每一位患者的服药剂量和最佳治疗方法，并采取适当的安全预防措施，是其职责所在。不论是出版商还是著作者，对于在本出版物使用过程中引起的或与本出版物相关的任何个人或财产的损伤和 / 或损失，均不承担任何责任。

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《心力衰竭》(*Heart Failure*) 是著名的《Braunwald 心脏病学》(*Braunwald's Heart Diseases*) 的姊妹卷, 由在心力衰竭的基础研究和临床医学方面都有很高造诣的 Douglas L. Mann 教授主编, 是一本科学性和权威性极高的心力衰竭专业书籍, 目前已经出版至第 2 版。正如杰出的心脏病学家、《Braunwald 心脏病学》的主编、哈佛大学医学院教授 Eugene Braunwald 对本书的推荐所述: 第 2 版《心力衰竭》是一本非常有价值的、不可或缺的心血管疾病参考书。我们是一个从事心血管基础研究和临床医疗工作的团队, 多年的工作经历使我们对这本书尤为偏爱。我们相信本书的内容将会有助于广大临床心血管病医生更好地诊治心力衰竭患者, 对从事心血管疾病基础研究的科研人员也会有很大帮助。

本书分为五大部分, 包括心力衰竭产生的分子和细胞机制、病理生理过程和机制、病因学、临床诊断和治疗方法。为了更好地理解心力衰竭, 本书首先从基因、分子、器官、组织及个体角度论述心力衰竭的发生机制。接着介绍心力衰竭的病理生理学变化, 除了着重讲述心脏的改变外, 还涉及血管、神经体液系统、肝、肺和肾等多器官的相应变化, 更好地诠释了心力衰竭是一种复杂的临床综合征。第三部分讨论心力衰竭的病因学, 特别总结了心力衰竭的流行病学特点和发展中国家的心力衰竭状况。第四部分详细描述了心力衰竭的临床表现和辅助检查, 其中有反映目前

研究热点的生物标志物和心脏影像学。最后一部分详细介绍了不同类型心力衰竭的治疗方法, 包括药物、器械和手术等主要治疗措施, 以及如何合理使用这些治疗手段以达到最佳治疗效果, 特别是增加了药物基因组学、细胞治疗、器械辅助治疗等前沿热点问题的介绍。第 2 版中约 1/3 的内容是新增加的。每章中都有新的作者参与, 并有内容更新。本书内容详细、条理清晰, 具有很高的科学性、逻辑性和权威性。本书也非常适用于作为教材, 供心血管专业的学生学习和教师的教学使用。

我们能有机会将这本书翻译成中文, 介绍给国内的同行和医学生们, 在感到高兴的同时, 深知重任在肩。参加此书翻译的译者都是工作在医疗和科研第一线的专家、教师和研究生。感谢所有的译者, 他们花费了大量业余时间逐字逐句读阅, 反复斟酌译文, 力求做到“信”、“达”、“雅”。正是大家的共同努力, 读者才能看到这本译著, 我们对他们的努力付出表示最诚挚的感谢。但是, 由于此书涉及内容广泛, 参译人员较多, 尽管我们力求准确, 仍有可能存在疏漏和翻译不当之处, 恳请读者予以指导和谅解。

高 炜 张幼怡

2012-08-02



尽管各种心脏病的诊断和治疗取得了惊人进步，但心力衰竭的流行率、发病率及死亡率仍持续攀升。表面看来这似乎有些自相矛盾，但并不难理解。由于心脏疾病的治疗往往是“成功控制”而不是治愈，心肌损害可能持续存在，有时甚至会由适应性代偿进展为失代偿。同时，人类寿命的延长以及老年人糖尿病、肥胖、心房颤动的患病率增加，也是心力衰竭患病率大幅度上升的重要原因。因此，在如何控制心脏疾病的探索中我们仍面临巨大的挑战。

如何才能赢得这场战役呢？当然不可能靠一粒神奇的子弹，不论是基因治疗、器械治疗还是药物治疗。我们相信通过 Douglas L. Mann 这本出色的著作——《心力衰竭》，可以带给我们详细而正确的治疗计划。对于任何一场战役，我们必须熟悉作战地形。本书前三个部分正是介绍这方面的内容。第一部分从基因、分子、组织、器官及整体水平探寻其发病机制，第二部分描述了疾病进展的病理生理过程。这些阐述涉及的内容不仅仅包括心脏，还有血管床、神经激素调节、肾以及肺。第三部分介绍了心力衰竭最常见的致病病因。第四部分详细描述了心力衰竭的临床表现和实验室检查。最后一部分阐述了目前心力衰竭的治疗方法，主要包括药物、器械和外科治疗，以及如何更好地选择或者联合应用这些方法。

作为同人类最顽固的敌人之一进行抗争的领军人物，Douglas L. Mann 医生为此书的每一章节选择了恰当的题目和最佳作者来写作，可喜可贺。他娴熟

的编辑技巧使此书顺理成章、融为一体，而不是孤立章节的简单堆砌。

本书第2版是在备受读者欢迎的第1版的基础上修订出版的，其中1/3的章节是全新的。有很多章节是由新作者完成的，并根据最新的数据和研究进行了内容更新。

特别感谢所有作者、所有研究者以及临床医生为此书出版所做的贡献。对于那些关注心力衰竭患病人数持续增长的心血管专科医生来说，《心力衰竭》第2版的闪亮登场将是有巨大价值的。此书对从事心力衰竭护理工作的人士以及他们的培训老师也同样有用。当然最终受益于此书的将是全世界成千上万的心力衰竭患者。

我们可以自豪地说，第2版《心力衰竭》是《Braunwald 心脏病学》一书价值斐然、不可或缺的姊妹卷。

Eugene Braunwald

波士顿，马萨诸塞州

Robert Bonow

芝加哥，伊利诺伊州

Peter Libby

波士顿，马萨诸塞州

Douglas P. Zipes

印第安纳波利斯，印第安纳州



《心力衰竭》第1版中提到的几个新治疗方法, 目前已成为心力衰竭治疗的标准手段(如心脏再同步化治疗), 或者正在进行多中心、多国家的临床试验(如干细胞治疗)。这也是我们修订出版《心力衰竭》第2版的主要原因。除了对第1版原有章节的更新, 第2版《心力衰竭》旨在提供一个更广阔、更富有教育意义的平台, 使大家对心力衰竭这一临床综合征有更深入的理解和认识。

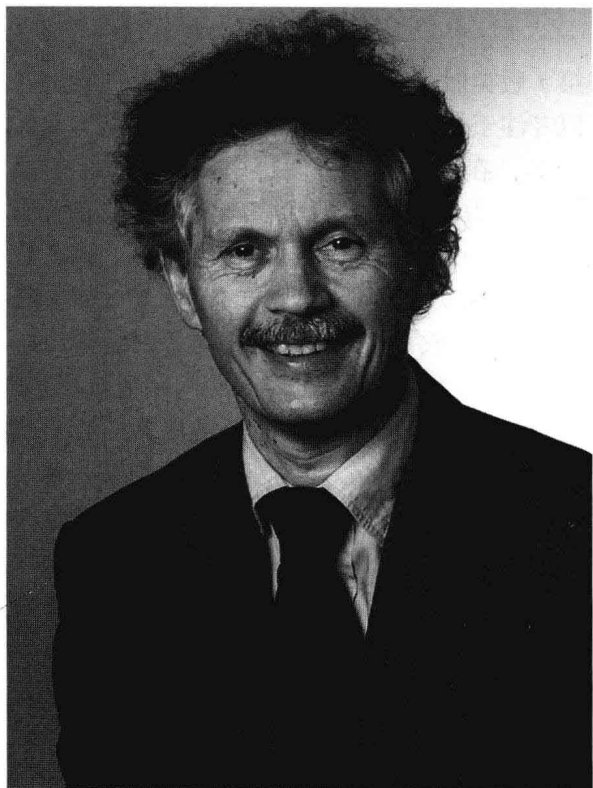
为达到这一目的, 第2版《心力衰竭》增加了第1版中没有涉及的20个全新章节, 尤其是对于心力衰竭的临床评估及治疗(见下文)进行了重点的阐述, 较之第1版增加了75%的内容。第1版的章节编排旨在提供一个可供实习生、科学家及执业医师从头到尾、逐章阅读的参考书, 该书能够全面反映心力衰竭领域从实验室到临床的研究和应用概况。第2版延续了第1版的组织形式, 分为5个部分: 心力衰竭产生的分子和细胞机制(第1部分)、心力衰竭疾病进展的机制(第2部分)、心力衰竭的病因学(第3部分)、临床评估(第4部分)、心力衰竭的治疗(第5部分)。

与第1版类似, 第2版中不同的章节是并行的, 读者可以专注于他们最感兴趣的心力衰竭某些方面的问题。例如, 在第2版章节编排中, 既有关于射血分数正常的心力衰竭的基础和临床研究, 也有关于干细胞治疗和心脏再生的基础和临床研究。第2版中也包括一些反映目前研究热点的新章节(如生物标志物、心脏器械、心脏影像、药物基因组学、心力衰竭的姑息治疗), 并加深了对某些问题的认识(如心肌恢复、糖尿病心肌病、化疗药物相关的心力衰竭、特殊人群的心力衰竭)。此外, 该版的某些章节内容迄今为止是独一无二的, 这些内容在心力衰竭方面的传统教科书中从未被提及, 例如发展中国家的心力衰竭、心力衰竭的预后评估以及以往被忽略的心力衰竭的认知障碍。

第2版《心力衰竭》通过一些卓越的专家和学者的共同努力, 向读者展示了一个心力衰竭领域从实验室到临床的全貌。很荣幸能和这些专家一起工作和学习。尽管我们做了最大努力以使每一章节的内容尽可能跟上最新进展, 但涵盖这一迅速发展领域内的所有进展仍是一件极具挑战性的事。

Douglas L. Mann, MD, FACC

悼念 Helmut Drexler



1996年12月，在位于法国 Sophia Antipolis 的欧洲心脏病学会总部（European Heart House）举办的一次座谈会上，我初次见到了 Helmut Drexler。当时，Helmut 在听我做的报告。听完报告后，他站起来，开始向我提出一系列非常有见地的问题，这些问题充满了挑战性。尽管我已经竭尽全力地去回答，但是他显然并不满足。我走下讲台后他还在继续问我一些更富有挑战性的问题。他对于学术问题的探讨绝对是深入的、不懈的、无止境的，就这样我们的友谊开始了，并一直持续到他生命的终点——2009年9月13日。

Helmut 是一位挑剔的思想家，从不想当然。他是典型的认知论者，他质疑一切事物，因为他想从事物的最基本层面知晓事物的本质。他对于研究心力衰竭机制的热情是无止境的，同样他也不不断地将这些理论知识转化应用到临床实践中。在内皮功能障碍、肾素-血管紧张素系统以及炎症在心力衰竭中的作用方面，他倾注了毕生的精力，做出了开创性的贡献。他率先采用随机临床试验方法进行经冠状动脉骨髓细胞移植治疗急性心肌梗死的临床研究，并首次发现了这种治疗的缺陷。在临终前不久，他完成了他最重要的研究，为治疗围生期心肌病这一罕见的疾病提供了潜在的新治疗

手段。尽管取得了这些卓越的专业成就，Helmut 人生的重心还是一直放在他的家庭、朋友以及他的同事身上。他们其中很多人在各自的学术领域中取得了非凡的成功，如 Denise Hilfiker-Kleiner、Kai Wollert、Bernhard Schieffer、Ulf Landmesser 等。他美丽的妻子 Krista 和最近刚从医学院毕业的女儿 Beatrice 和他一直相伴。

我最后一次见到 Helmut 是和他共进晚餐。晚餐上，我们畅谈了对学术追求的新体验，分享了彼此对家人、朋友以及红酒的美好感受。之后，我告诉他我准备搬到另一个城市，并接受一个新的学术任命。Helmut 从餐桌对面由衷兴奋地看着我，但随后他又提醒我，移居是有难度的，因为当一个人年龄变大时，很难再建立起同以往一样牢固的友谊。与 Helmut 交往的这些年，我知道他绝大多数时候都是正确的。他的逝世，使我失去了一位永远不可替代的好友！

Douglas L. Mann, MD, FACC

致 谢



任何一本像《心力衰竭》这样内容庞杂、篇幅浩大的临床医学参考书，都不可能是轻而易举、一蹴而就写成的，其中凝结了众人的智慧、经验和贡献。首先，也是最为重要的，我要感谢 Eugene Braunwald 医生给我编辑这本参考书的珍贵机会。同时，也要感谢 Bonow、Libby 和 Zipes 医生，他们在我协助编辑《Braunwald 心脏病学》第 8 版时教给我许多编辑技巧。第 2 版《心力衰竭》之所以涵盖内容更为广泛，首先要归功于那些高年资的合编者。我还要感谢 Elsevier 的工作人员给我的大力支持，使本书的内容和图示设计更为丰富。特别要感谢 Elsevier 开发编

辑 Marla Sussman、项目经理 Janaki Srinivasan、执行出版商 Natasha Andjelkovic 以及编辑助理 Brad McIlwain 等工作人员，感谢他们富有耐心和宽容的协助。同时，要感谢我的行政助理 Mary Wingate 女士对于反复编辑、修改格式的耐心支持。最后，感谢给予我坚定支持的妻子 Laura，她忍耐了我在《心力衰竭》第 2 版的整个编辑和书写过程中时而出现、时而离家。谢谢你！Laura。

Douglas L. Mann, MD, FACC



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