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疾病自愈对新药和新疾病治疗技术研发的启示*

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摘　要:为了探索新药和新疾病治疗技术的研发新路径,从谷歌学术、PubMed 数据库和网络资源中检索并分析与疾病自愈相关的文献,发现人类的多种疾病都具有自愈的可能性.根据此发现,提出了基于激发疾病自愈来开发新药和新疾病治疗技术的新见解.

关键词:疾病自愈;新药;新疾病治疗技术;研究与发展
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国际疾病分类第 11 次修订版(ICD-11)(https://icd.who.int/en)的数据显示,与伤害、疾病和死亡相关的病症超过 55 000 个.人类孟德尔遗传在线(OMIM)(https://www.NCBI.NLM.NIH.gov/OMIM/)的数据显示,人类的遗传性疾病有 6 000 多种.疾病是一种自然现象,本质上是一种生物多样性,也是人类认识和理解生命现象的一扇窗[1].常见疾病的病因既不是遗传性的,也不是社会性的,而是由年龄决定的或是生物性的,且多半是未知的[2].作为一个强健和自给自足的有机体,人体具有自愈能力.只要给予足够的时间休养,充分补充缺失的营养,许多疾病就会好转或自愈[3],这是几个世纪以来医生观察和报道的一个普遍现象[3].这意味着疾病自愈具有显而易见的且十分重要的临床意义,即治疗疾病的价值,并暗示疾病不仅是人类进化的自然结果,也是人类进化的驱动力.例如癌症的自愈[4]、头癣的自愈[5]、由脓肿引起的前列腺纤维腺瘤的自愈[6]、颈内动脉海绵窦内动脉瘤的自愈[7]和麻风病的自愈[8]等.但是,激活疾病自愈的精确方式及作用机制仍不清楚.笔者拟从谷歌学术、PubMed 数据库和网络资源中检索并分析与疾病自愈相关的文献,期望为新药和新疾病治疗技术的研发提供新见解,从而有效促进人类治疗疾病能力的提升.

1　已报道的疾病自愈案例

(1)已报道的癌症自愈[3-4,6-7,9-22].

皮肤黑色素瘤、肾细胞癌、成神经细胞瘤、继发性玻璃体视网膜淋巴瘤、肾上腺样肿瘤、神经细胞瘤、绒毛膜癌、膀胱癌、软组织癌、骨肉瘤、胃癌、肝癌、喉癌、肺癌、胰腺癌、甲状腺癌、舌癌、淋巴瘤、白血病、成视网膜细胞瘤、血管内皮瘤、何杰金氏病、血管内皮瘤、淋巴肉瘤、巩膜恶性肿瘤、成骨细胞瘤、默克尔细胞瘤、神经胶质瘤、颅内动脉瘤破裂、假血管肉瘤、恶性黑色素瘤、泛发性婴儿肌纤维瘤病、鳞状细胞癌、非小细胞肺癌、继发性玻璃体视网膜淋巴瘤、转移性肝细胞癌、孤立性视网膜星形细胞错构瘤、结肠直肠癌、乳腺癌等.

(2)已报道的皮肤病自愈[3,5,23-28].

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婴儿家族性皮肤粘蛋白病、青少年皮肤粘蛋白病、成人丘疹性粘蛋白病、先天性疣状角化过度、瘢痕性病变、巨大尖锐湿疣、银屑病、皮肤局灶性粘蛋白病、疱疹样皮炎等.

(3)已报道的组织细胞增生性疾病自愈[3,29-30].

网状组织细胞增多症、朗格汉斯细胞组织细胞增多症等.

(4)已报道的创伤自愈[3,31-32].

搏动性突眼、颈动脉海绵体吻合术、创伤性脑膜中动静脉瘘、硬膜外血肿、枪击引起的颈动脉海绵窦瘘等.

(5)已报道的内分泌、营养代谢和免疫性疾病自愈[3,33].

桥本甲状腺炎、原发性甲状腺功能减退、糖尿病、蝶鞍增大和相关的全垂体功能减退症状、胃泌素瘤、皮质醇增多症、巨冷球蛋白血症、多系统组织细胞增生症 X、朗格汉斯细胞组织细胞增生症、网状组织细胞增多症、弥漫性气管支气管淀粉样变性、选择性 IgA 缺乏症等.

(6)已报道的循环系统、血液和造血器官疾病自愈[3].

先心源性休克、冠心病、变异型心绞痛、颅内外动静脉畸形、后颅窝硬脑膜动静脉畸形、硬脑膜动静脉畸形、脑动静脉畸形、脑室血肿、脑动脉瘤、脑室内出血、儿童颈内动脉海绵窦内动脉瘤、颅内动脉瘤、颅内动脉瘤破裂、结节性多动脉炎致慢性肾功能衰竭、后颅窝硬脑膜动静脉瘘、肝静脉闭塞、心房间隔缺损、室间隔缺损、冠状动脉瘘、肺动脉狭窄、溶血性尿毒症综合征、败血症后伴有过多母细胞的难治性贫血、骨髓增生异常综合征、凝血因子Ⅷ缺乏症、凝血酶原缺乏症、急性髓系白血病、血管免疫母细胞淋巴结病等.

(7)已报道的神经系统、感觉器官和精神疾病自愈[3].

颅中窝蛛网膜囊肿、下斜肌假性麻痹、布朗上斜肌腱鞘综合征、妊娠早期中心静脉血栓、白内障晶状体、老年视网膜劈裂症、硬核液化白内障、老年性白内障、前房囊肿、视阵挛性小脑病、外层渗出性视网膜病变、突发性听力损失、胎儿脑积水、酗酒者、鸦片成瘾、烟草成瘾等.

(8)已报道的消化系统和呼吸系统疾病自愈[3].

抽吸后的骨内血管病变、牙囊肿、巨大肥厚性胃炎、十二指肠溃疡、良性胃溃疡引起的胃结肠瘘、胆囊结石、胆结石、化脓性肝脓肿、先天性肝囊肿、胰腺肿块、胰腺假性囊肿、哮喘、钙化的孤立肺结节、慢性纵隔肿块等.

(9)已报道的泌尿生殖系统、妊娠和分娩相关疾病自愈[3].

膜增生性肾小球肾炎、伴新月体的特发性膜性肾小球肾炎、原发性 IgA 肾病(伯杰病)、肾结石、肾囊肿、多囊性发育不良肾、继发性闭经、卵泡膜叶黄素囊肿、青春期胎儿宫内腹水等.

(10)已报道的传染病或寄生虫病自愈[3,8,34-37].

头癣、麻风病、人类南美锥虫病、黑癣和艾滋病、蠕虫病、卡波济氏肉瘤、获得性免疫缺陷综合征患儿的隐孢子虫病、慢性自身免疫性血小板减少症、获得性免疫缺陷综合征患者的卡氏肺孢子虫肺炎、脊髓病、血小板减少症、人类免疫缺陷病毒感染、艾滋病患者支气管内鸟胞内分枝杆菌感染、心肌症、鼻孢子丝菌病、皮肤孢子丝菌病、口腔组织胞浆菌病、眼部组织胞浆菌病综合征、肺类球孢子菌病、传染性软疣、疣、泛发性传染性软疣变黑、扁平疣、乳糜尿、青少年复发性腮腺炎、结核性腰肌脓肿钙化等.

(11)已报道的其他疾病自愈[3,38-41].

肢端肥大症、未破裂动静脉畸形、硬膜外高流量血管畸形、颈椎间盘突出症、第五腰椎峡部裂、髓核突出症、类风湿性关节炎等.

上述报道表明,人类的许多疾病都具有自愈的可能性,激发疾病自愈可能是研发新药和新疾病治疗技术最有希望的路径,并有可能是治疗人类疾病的优选方案之一.

2　疾病自愈的启示

图 1 展示了基于激发疾病自愈来研发新药和新疾病治疗技术的路线.具体思路如下:首先,利用人类疾病自愈案例来研究和阐明激发疾病自愈的方式及机制;其次,利用模拟人类疾病自愈的动物模型来研究

和阐明激发疾病自愈的方式及机制;再次,在阐明激发疾病自愈的方式及机制的基础上,研发新药和建立新疾病治疗技术;最后,利用研发出来的新药和新疾病治疗技术来激发疾病自愈.

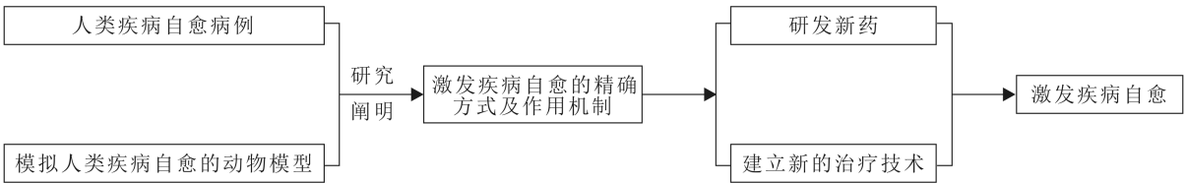

图 1 基于激发疾病自愈来研发新药和新疾病治疗技术示意

Fig. 1 Schematic Diagram of Researching and Developing New Drugs and New Treatment Technologies for Diseases Based on Triggering Self-Healing

疾病自愈作为一种新兴的治疗方式,具有高效、低毒或无毒的优势,不仅可以避免药物治疗、放射治疗和手术治疗可能带来的并发症和后遗症,还有望实现疾病的完全治愈.然而,在将疾病自愈理念应用于人类疾病治疗及身心健康维护之前,仍需解决一些关键问题.例如,如何根据特定疾病的生物学特性设计新药或新技术以激发自愈机制,以及明确疾病自愈的精确方式和作用机制,都是亟待探索的科学难题.以癌症自愈为例,其自愈潜在机制[3,10-11,42-44]可能涉及多个方面.具体包括:激活免疫系统以杀死癌细胞;基因发生突变,导致癌细胞死亡;端粒酶变短、不稳定、活性低,导致癌细胞死亡;表观遗传学改变,导致癌细胞死亡;癌细胞转化为正常组织细胞.尽管当前癌症自愈的确切机制尚未完全明确,但激活免疫系统可能会在具有特定遗传背景的癌症患者中发挥关键作用.因此,深入探究遗传学与免疫系统激活之间的关系,对于识别具有自愈潜力的癌症意义重大,也可为未来的癌症治疗提供新思路.

3 结语

总而言之,疾病自愈是指(或可被定义为)无需药物治疗或接受不足以缓解疾病的治疗而获得的疾病痊愈[3].已有的报道表明,激发疾病自愈可能是最有希望的研发新药和新疾病治疗技术的策略之一.基于特定目标疾病的生物学构成来设计可激发自愈的药物和技术是值得进一步研究的方向,开发模拟人类疾病自愈的动物模型将是实现这一目标的宝贵工具.科学家永远不知道为什么有些东西不起作用,直到他们找到起作用的东西.开展疾病自愈研究有助于阐明复杂性疾病的病因,进而建立新疾病治疗方法,最终促进医学进步,揭示人类生命奥秘.因此,基于激发疾病自愈来开发新药和新疾病治疗技术是一个值得被广泛关注、充分讨论和深入研究的课题.

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Implications of Self-Healing for the Research and Development of New Drugs and New Treatment Technologies for Diseases

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Abstract:In order to explore a new path for research and development of new drugs and new treatment technologies for diseases,literatures relating to self-healing from Google Scholar,PubMed database,and Websites was retrieved and analyzed. It can be found that many human diseases show the possibility of self-healing. According to the above findings,a novel insight into developing new drugs and new treatment technologies for diseases is proposed based on triggering self-healing.

Key words:self-healing of disease ;new drugs;new treatment technologies for diseases;research and development

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