

开展老年健康影响因素的系统研究,推动老年健康促进行动的科学实践

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【摘要】 当前我国人口老龄化形势日益严峻,多病共存、失能、失智和精神心理问题严重影响了老年人的生命质量。虽然我国在老年健康研究领域已经取得了很大的成果,但在研究假设、样本量、研究设计和随访质量上有一定的局限,还不足以形成高质量证据链,亦不能很好地指导制定中国老年人特别是高龄老人的健康指南或标准。本期重点号展示了老年健康生物标志物队列研究团队在老年健康流行规律、影响因素和生物标志物等方面产出的系列成果,以为老年人健康服务提供更全面的科学证据,支撑老年健康促进行动的科学实施,推动实现健康老龄化。

【关键词】 老年健康;影响因素;健康促进

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Conducting systematic researches on influencing factors for healthy ageing and promoting scientific implementation of health promotion program for the elderly

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【Abstract】 With the worsening of population ageing in China, the life quality of the elderly is deeply affected by comorbidity, disability, dementia and psychological problems. In China, great achievements have been made in the research of healthy ageing, but due to limitations in research hypothesis, sample size, study design and quality of follow-up, the research findings are insufficient to provide high-quality evidence chain or can't be adopt in health guidelines or standards for the elderly in China, especially the oldest-old. In this special issue, the team of Healthy Aging and Biomarkers Cohort Study reported a series of new findings on health pattern of the elderly, influencing factors and biomarkers in healthy ageing research to provide more comprehensive scientific evidences for health service and to support scientific implementation of health promotion program for the elderly and promote healthy ageing.

【Key words】 Healthy ageing; Influencing factor; Health promotion

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2018年我国≥60岁老年人口为2.49亿,占总人口的17.9%^[1];预计2050年将达4亿以上,其中>80岁高龄老人将达1.5亿^[2]。“健康中国2030”规划纲要指出健康老龄化,实现国民健康长寿,是国家富强、民族振兴的重要标志^[3-4]。为积极应对当前老年人突

出的健康问题,《健康中国行动(2019—2030年)》^[5]中提出了“老年健康促进行动”,指出应通过全方位干预措施提高老年人健康水平,改善老年人生活质量,并强调在未来10年,65~74岁老年人失能发生率应有所下降,≥65岁人群老年痴呆患病率增速下

降。目前,心脑血管疾病、癌症、慢性呼吸系统疾病、糖尿病等慢性病已成为主要死因,导致的负担占总疾病负担的70%以上,如何实现健康老龄化是我国目前亟待解决的问题。

在国际上欧美等发达国家较早进入老龄化社会,开展老年健康队列和长寿队列时间早、随访时间长、收集生物样本较为齐全、健康指标多,但由于基因、环境和社会行为等方面的差异,其研究结果是否适用于中国人群有待经我国老年健康队列验证^[6-8]。国内老年健康队列研究起步相对较晚,针对老年人群特别是长寿人群的研究队列多集中于某一地区,多中心、前瞻性长寿队列相对缺乏,样本量多低于1万人,且长寿老人和百岁老人比例较低,不足以形成高质量证据链,亦不能很好地指导制定中国老年人特别是高龄老人的健康指南或标准。为在我国建立具有全国代表性的老年健康前瞻性队列,中国CDC施小明团队与北京大学曾毅团队密切合作,整合资源,统筹布局老年健康影响因素和生物标志物研究,将全国面上调查与典型地区调查相结合,宏观研究与微观研究相结合,传统流行病学与分子流行病学相结合,在我国23个省份800多个县(区)开展了8轮中国老年健康影响因素跟踪调查(Chinese Longitudinal Healthy Longevity Survey, CLHLS)^[9],在9个长寿地区开展了4轮老年健康生物标志物队列研究(Healthy Aging and Biomarkers Cohort Study, HABCS)^[10]。旨在探索健康长寿的多维度影响因素,特别是生物医学指标对老年健康的影响,探索如何提高老年生活质量、实现健康长寿的实践路径。除CLHLS和HABCS外,我国还陆续建立了多个老年健康队列或长寿队列,如2000年建立的广州生物库队列^[11],2011年启动的中国健康与退休纵向研究^[12],2014年建立的海南百岁老人队列研究^[13]。近两年,为进一步推动老龄健康研究,科技部于2018年发布“主动健康和老龄化科技应对”重点专项,主要聚焦4个重点方向:健康生物学机制及健康影响因素的关键基础研究、主动健康关键技术和产品研发、老年常见疾病防控和康复护理技术研究、主动健康和老年服务科技示范与应用推广。

近10余年来,CLHLS和HABCS研究团队开展了系列研究,在老年健康的流行规律、影响因素和生物标志物等产出系列成果,对于科学实施老年健康促进行动具有重要指导意义。几项具有代表性的成果:第一,报道了高龄老人SBP与全因死亡风险呈U形关联^[14],高SBP水平增加心血管疾病死亡风

险,低SBP水平增加非心血管疾病死亡风险,研究结果发表在*BMJ*上。该研究成功实现了高龄老人血压最低风险点和低风险区间的识别,创新性提出应关注低血压和非心血管事件,对修正高龄老人血压管理理念尤为重要,为医学工作者确定高龄老人血压管理的适宜范围、时机和策略提供参考。第二,揭示了区别于低龄老人(60~79岁)的高龄老人流行病学规律,提出血脂和超重/肥胖等相关“危险因素悖论”,改变了对我国高龄老人血脂、体重和腰围适宜水平的认识^[15-24]。提出应关注低血脂、低体重对高龄老人的健康危害,颠覆了“越低越好”的血脂管理理念和“千金难买老来瘦”的传统观念和认识误区。研究提示在机体衰老过程中血脂代谢和能量代谢可能随之而发生变化,我国专业机构应制订针对高龄老人群体的血压、体重和血脂健康管理标准,在高龄老人中应审慎地开展降血脂治疗和体重管理。第三,阐明了大气PM_{2.5}中高浓度长期暴露对老年人群死亡风险的慢性影响及其程度^[25],研究结果发表在*Lancet Public Health*上。该研究提示老年人作为空气污染的敏感人群应予以重点关注,这对降低空气污染长期暴露所致老年人超额死亡风险具有重要意义。

在本期重点号,HABCS研究团队重点围绕老年人心理健康、功能状态维持和慢性病影响因素及预测展开研究。石婉荧等^[26]发现老年人睡眠时长较短、睡眠质量较差与焦虑检出风险较高相关联,且关联在<80岁老年人中更为显著,提示应重点关注睡眠在<80岁老年人心理健康中的作用。康琪等^[27]发现我国长寿地区老年人抑郁症状普遍,疾病状态(如胃肠溃疡和关节炎等)增加抑郁症状检出风险,保持健康生活方式(如锻炼身体、常食鱼类、参加文娱和社会活动等)和良好功能状态(如视力)有利于降低抑郁症状检出风险,促进老年人心理健康。张迎建等^[28]发现低体重、超重及肥胖在我国长寿地区老年人中均广泛存在,特别是>90岁老年人,低体重较为普遍;吸烟、家庭经济收入、膳食营养和体育锻炼等均与老年人体重密切相关。蔡森纯等^[29]发现视力不良与我国老年人的死亡风险升高相关联,女性、>90岁老年人视力不良组的死亡风险比视力良好组分别高48%和39%,提示应重点防治女性、>90岁老年人的视力不良和眼部疾病。陈清等^[30]发现低肾小球滤过率是老年人全因死亡风险升高的独立危险因素,提示老年人群肾小球滤过率低于正常水平可能并非正常老化的结果,预防和治疗引起低肾小球滤过率的疾病可能有助于提高老年人群寿命。为预

测慢性肾脏病的发生风险,周锦辉等^[31]建立了适用于我国老年人慢性肾脏病的发生风险预测工具,能够直观反映不同个体的慢性肾脏病发生风险,为开展个体化预防、干预和治疗提供了一定的参考。期待本期重点号文章为推动老年健康促进行动的科学研究提供进一步的基础数据和证据支撑。

当前,在我国老年健康研究领域有一系列重要科学问题有待解决,如识别老年健康的关键因素和病因,针对可控病因开展健康管理;探讨高龄老人、长寿老人和百岁老人的衰老机制,基于衰老过程所发生的病理和生理变化诠释和完善衰老和长寿的理论假说;基于多组学技术识别分子生物标志物、基于老年健康研究与人工智能融合解决衰老作用机制的复杂性与不确定性问题。展望未来,我国需要进一步加强老年健康和长寿的综合系统研究,基于中国的队列产出符合我国老年人群特点的科学证据,进一步发现老年健康和长寿的关键影响因素和重要生物标志物,探讨不同长寿影响因素的综合效应机制和长寿的生物学机制。着重加强老年健康队列和生物样本库的建设和数据共享,结合基因组、表观遗传学、蛋白组和代谢组等多组学检测技术,进一步识别影响健康长寿的关键因素和生物标志物,揭示影响长寿的潜在机制和多因素的综合效应。通过开展老年健康影响因素的系统研究,围绕健康教育、预防保健、疾病诊治、康复护理、长期照护和安宁疗护6个环节为老年人健康服务提供全方位的科学证据,支撑老年健康促进行动的科学研究,推动实现健康老龄化,共建共享健康中国。

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