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COVID-2019疫情期间对儿童哮喘患者的治疗与管理研究进展

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摘　要

目前COVID-2019已经成为了全球最为严重的卫生医疗问题，对人民的生命健康以及日常生活都造成了很大的困扰。儿童支气管哮喘作为儿童最为常见的慢性呼吸系统疾病，并且发病率呈现了逐渐上升的趋势。它常表现为反复发作的慢性过程，难以根除治疗，并对儿童患者的学习与生活以及患者的家庭造成极大的困扰，对儿童的发育也有着较大的影响。在当今COVID-2019病毒的肆虐下对儿童哮喘患者的治疗与管理显得至关重要。接下来我们将分别从对儿童哮喘患者的治疗与管理的不同方面进行归纳，以给临床医师以及儿童哮喘的研究者理论指导，从而可以对其提供更好的帮助。

关键词

儿童，支气管哮喘，COVID-2019

Advances in Research on the Treatment and Management of Pediatric Asthma Patients during the COVID-2019 Epidemic

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Abstract

At present, COVID-2019 has become the most serious health and medical problem in the world,

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causing great trouble to people's life and health and daily life. Bronchial asthma in children is the most common chronic respiratory disease in children, and its incidence rate is gradually increasing. It is often manifested as a chronic process of repeated attacks, which is difficult to eradicate and treat, and causes great trouble to the study and life of children patients, as well as their families, and also has a great impact on the development of children. Under the ravages of COVID-2019 virus, the treatment and management of children with asthma are of great importance. Next, we will summarize the different aspects of treatment and management of children with asthma, so as to provide theoretical guidance for clinicians and researchers of children with asthma, so as to provide better help.

Keywords

Children, Bronchial Asthma, COVID-2019

1. 前言

2019 年 12 月，在中国武汉市爆发了一种未知的新型冠状病毒，后被命名为(Corona Virus Disease 2019, COVID-2019) [1]-[9]。该病毒在全球范围内掀起了爆发性的肺炎感染[10] [11]。截止目前(2022 年 7 月 7 号) WHO 的统计数据，COVID-2019 已经在全球范围内一共造成了约 634 万人死亡，并且这一数字还在不断的增多[12]。目前 COVID-2019 已经成为了全球最为严重的卫生医疗问题，对人民的生命健康以及日常生活都造成了很大的困扰[13]。考虑到 COVID-2019 的危害，2020 年 1 月 20 日，中国国家卫生健康委员会将 COVID-2019 列为乙类传染病，并按照甲类传染病的管理防范方式进行管理。众所周知，COVID-2019 主要是通过呼吸道飞沫和直接接触等方式在感染者之间传播，不仅可以在人与人之间传播，同时也可以通过人与环境之间进行直接传播。在感染者说话、咳嗽、打喷嚏等时，患者就会从口腔中瞬间释放出大量的微小含有病毒的颗粒物，进而造成 COVID-2019 的传播[9] [14]。COVID-2019 感染者的临床症状主要是体现在呼吸道上，包括有咳嗽、流鼻涕、咽痛、气短、胸闷等，同时伴有周身症状(例如发热、头晕等)，严重者会出现呼吸困难[15] [16]。根据美国儿科学会和儿童医院协会的统计数据，自从 2022 年以来美国累计新增儿童感染病例大约为 580 万例，这一结果说明了新冠疫情对于儿童患者的影响也是巨大的[17] [18]。

2. 新冠疫情影响儿童哮喘的发作

COVID-19 也是儿童哮喘发作的相关因素中最重要的一个因素，但是目前关于 COVID-19 引起哮喘发作的病理和生理机制仍处于未知[19]。来自中国武汉的一项研究对一家医院 402 名患者的病死率和病情严重程度进行分析，结果表明病情严重程度与合并症有关，而哮喘不是导致 COVID-19 严重后果的风险因素[8]。但是，一些合并症包括高血压、糖尿病、冠心病等已经被确定为 COVID-19 的高风险因素[20]。而儿童哮喘和感染 COVID-19 之间的相关性目前依然未得到一致的结论。儿童哮喘是广泛流行的过敏性和炎症性呼吸道疾病[21]，而 COVID-19 作用的组织也主要是上呼吸道、下呼吸道以及患者的肺部组织，并产生不同程度的炎症反应[19]，这就导致了儿童哮喘和感染 COVID-19 之间存在着密切的临床和病理生理关系。根据中国最大的儿童哮喘和感染 COVID-19 流行病学研究数据，其中包含了 72,314 例病例并且

有 44,672 例被归结为儿童哮喘和感染 COVID-19 确诊病例，但是这项研究并没有得出儿童哮喘是COVID-19 的危险因素这一结论[22]。另外，由武汉大学中南医院的 290 例 COVID-19 感染患者的数据样本，其中只存在 1 例儿童 COVID-19 患者[1]。这就更加能说明儿童哮喘和感染 COVID-19 之间的弱相关性。随后，来自巴西、俄罗斯等的研究团队也发现了感染 COVID-19 的哮喘发病率分别为 1.5%和 1.8%，但是这两个国家的普通人群的哮喘发病率分别为 13.9%和 6.9% [23]。在意大利伦巴第地区实验室研究的 1591 例感染 COVID-19 患者的回顾性病例中，并没有发现儿童哮喘患者[24]。但是，在一项澳大利亚的儿科研究中，研究者发现在所有的感染 COVID-19 患儿中约有 1/4 的哮喘患者，然而澳大利亚在小于 17 岁的儿童患者哮喘发病率仅仅为 10.7% [25]。

3. 新冠疫情下儿童哮喘的干预

儿童哮喘患者在预防 COVID-19 的条件下应当被作为重点人群保护起来。根据 GINA 指南推荐的治疗方案，规范地对病情进行控制，保持病情稳定，在必要时需要升级治疗[26]。受到 COVID-19 疫情的影响，儿童哮喘患者的家庭生活也会受到较大的影响，这些因素均会增加哮喘发作或者急性发作的风险。哮喘的治疗目标就是进行良好的控制，在日常生活中尽可能减小急性的复发以及出现肺功能的损害。目前临床上对哮喘的治疗主要是通过药物治疗，包括一些控制药物和缓解药物。控制药物主要是糖皮质激素，例如地塞米松、甲基强的松龙、泼尼松、布地奈德等，可以通过口服、雾化吸入或者静脉点滴的方式给药[27]。糖皮质激素具有良好的抗炎、抗过敏性，能够消除气道的充血、水肿等。而缓解药物主要是短效 β 受体激动剂，如沙丁胺醇、特布他林等，具有缓解支气管痉挛的状态的功能。在 COVID-19 全球爆发的环境下，儿童哮喘患者应当规范合格使用控制类药物，并且保持日常携带防止断药等。在临床门诊方面，应该进行有效的排查 COVID-19 感染的疑似病例，防止患儿在住院就诊的过程中发生病原体的交叉感染。及时做好诊室和检查室的清洁和日常消毒，接诊的医护人员建议选择免洗的消毒液并避免接触其他身体部位。加强诊疗场所的通风，做好诊疗场所、医疗器械、患儿使用物品等的清洁消毒。

4. 新冠疫情感染儿童哮喘的规范化管理

在新冠疫情期间，由于哮喘患儿的自我管理以及来院看病都存在着一定的障碍，看病流程繁琐[28]。部分的哮喘患儿和监护人对病情的监测和用药办法没有确定的理解，造成了医护人员的治疗困难，因而对哮喘患儿进行延伸护理显得尤为重要，可以提高哮喘治疗的效果，并减少反复发作的情况[29]。坚持以预防为主，通过专业的病情评估、个性化的治疗方案与用药指导，来实现对病情的良好监控，减少哮喘发作的风险。延伸护理对于患儿及监护人实行针对性的随访护理和指导，对患儿的病情控制起到了关键的作用[30]。一方面可以提高患儿及监护人对其病情的重视以及用药依从性，另一方面可以加强患儿的自我管理能力，提高医护关系的和谐程度，更有利于病情的治疗与控制。但是由于慢性病的哮喘治疗周期较长、多重的发作诱因等，造成了儿童哮喘的易发作性。仅有急性发作以及持续发作的哮喘患儿需要紧急就医治疗，另外的患儿仅需在家中治疗即可，规律的按照长期管理方法进行药物吸入控制，进行 COVID-19 疫苗接种，同时加强运动及避免接触过敏原[31]。由于受到监护人文化程度、患儿的年龄、配合程度等因素的干扰，有的患儿在归家后的依从性较为参差不齐，难以有效地控制哮喘的病情，这对新冠疫情感染儿童哮喘的延伸护理提出了一定的考验。

5. 总结

在这篇文章中，我们归纳了儿童哮喘与 COVID-2019 之间的关系，分析了儿童哮喘在 COVID-2019 大流行期间的合理管理与科学治疗。目前 COVID-2019 已经成为了全球最为严重的卫生医疗问题，对人

民的生命健康以及日常生活都造成了很大的困扰。儿童支气管哮喘作为儿童中最为常见的慢性呼吸系统疾病，并且发病率呈现了逐渐上升的趋势。它常表现为反复发作的慢性过程，难以根除治疗，并对儿童患者的学习与生活，以及患者的家庭造成极大的困扰，对儿童的发育也有着较大的影响。在当今COVID-2019 病毒的肆虐下对儿童哮喘患者的治疗与管理显得至关重要。

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