研究: 气候变化或致肾结石发病率增加

Climate change may cause additional kidney stones

美国一项研究显示,全球气温上升可能会导致肾结石病例的增加,如果温室气体排放继续保持目前的速度,肾结石病例将增加 2.2%至 3.9%。



[Photo/IC]

Climate change in the coming decades could lead to an increase in cases of kidney stones that would bring huge costs to healthcare systems, according to research by scientists in the United States.

美国科学家的研究显示,未来几十年内的气候变化可能导致肾结石病例增加,这将大大加重医疗系统负担。 A study, published this week in *Scientific Reports*, found that even if measures are put in place to reduce greenhouse gas emissions, there would still be a rise in cases of the painful condition. 本周发表在《科学报告》上的一项研究发现,即使采取措施减少温室气体排放,这样肾结石病例仍会增加。 A research team from the Children's Hospital of Philadelphia knew from previous studies that high temperatures and dehydration increase the risk of developing kidney stones. 费城儿童医院的一个研究小组此前进行的一项研究显示,高温和脱水会增加患肾结石的风险。

With this latest study, the scientists sought to project how climate change will impact the burden of kidney stone disease on healthcare systems in the future, reported *The Independent* newspaper.

据英国《独立报》报道,通过这项最新研究,科学家们试图预测未来气候变化将如何影响肾结石疾病给医疗系统造成的负担。

Kidney stone disease is caused by hard deposits of minerals that develop in concentrated urine and cause pain when passing through the urinary tract. The researchers said incidence of the condition has increased in the last 20 years.

肾结石是由尿液中形成的坚硬矿物质沉积物引起的,通过尿路时会引起疼痛。研究人员称,在过去 20 年中,这种疾病的发病率有所上升。

The scientists created a model to estimate the impact of heat on future kidney stone presentations in the southeastern US state of South Carolina, which has a higher incidence of kidney stone disease.

科学家们建立模型估算高温对未来美国东南部南卡罗来纳州肾结石疾病情况的影响。该州肾结石发病率较高。

The model predicted that the number of cases will increase between 2.2 percent and 3.9 percent by the year 2089, depending on projected daily temperatures under two climate change scenarios.

该模型预测,到 2089 年,肾结石病例数量将增加 2.2%至 3.9%,具体取决于在两种气候变化情景下预测的每日温度。

In the first scenario, greenhouse gas emissions are cut to an intermediate level as humans shift to using lower-emissions sources of energy, while in the second, emissions continue at the current rate.

在第一种情况下,随着人类转向使用排放量较低的能源,温室气体排放量被削减到中等水平,而在第二种情况下,排放量继续以目前的速度增长。

In the first scenario, average temperatures increase by 2.3 C by 2100, compared with 3.6 C in the second. These projections were taken from studies made by the United Nations Intergovernmental Panel on Climate Change.

在第一种情况下,到 2100 年时平均温度上升 2.3 摄氏度,而在第二种情况下平均温度上升 3.6 摄氏度。 这些数据预测来自联合国政府间气候变化专门委员会的研究。

In comments with a news release, Gregory E Tasian, a urologist at the Children's Hospital of Philadelphia and senior author of the study, said: "While it is impossible to predict with certainty how future policies will slow or hasten greenhouse gas emission and anthropogenic climate change, and to know exactly what future daily temperatures will be, our analysis suggests that a warming planet will likely cause an increased burden of kidney stone disease on healthcare systems.

费城儿童医院泌尿科医生、该研究论文的主要作者格雷戈里·塔西安在新闻发布会上表示: "虽然我们不可能确切预测未来政策将如何减缓或加速温室气体排放和人为气候变化,也不可能确切知道未来的每日气温,但我们的分析表明,全球变暖可能会增加肾结石病给医疗系统带来的负担。"

"With climate change, we don't often talk about the impact on human health, particularly when it comes to children, but a warming planet will have significant effects on human health.

"我们不经常谈论气候变化对人类健康的影响,特别是对儿童的影响,但全球变暖将对人类健康产生重大 影响。"

"As paediatric researchers, we have a duty to explore the burden of climate change on human health, as the children of today will be living this reality in the future."

"作为儿科研究人员,我们有责任探索气候变化对人类健康的影响,因为今天的儿童在未来将生活在这个现实中。"