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Bacteria commonly found in the body linked to stomach cancer, NTU study finds

By Jewel Stolarchuk



SINGAPORE: A new study has uncovered a startling revelation linking a common bacterium residing in the human body to stomach cancer, shedding light on potential new avenues for treatment and prevention.

The research, jointly conducted by NTU Singapore and the Chinese University of Hong Kong, has unveiled the significant role of *Streptococcus anginosus* bacteria in the development of gastric cancer, a disease that ranks as the fifth most prevalent cancer worldwide.

S. anginosus, typically innocuous in healthy individuals, inhabits various regions of the body, including the mouth, throat, intestines, and vagina.

Though infrequently causing minor infections like sore throats and skin issues, this bacterium has now been identified as a key player in instigating stomach infections in mice, triggering cellular damage and alterations conducive to the progression of gastric cancer.

In a series of meticulous experiments conducted on mice, researchers observed that *S. anginosus* induced the growth of stomach cancer cells and substantially augmented the size and weight of tumours.

Intriguingly, the study revealed that disrupting a specific protein on the surface of these bacteria, crucial for their interaction with stomach lining cells, significantly diminished their capacity to promote stomach cancer.

These findings represent a pivotal addition to the growing body of evidence implicating bacterial species in the pathogenesis of gastric cancer.

While the association between *Helicobacter pylori* infection and heightened gastric cancer risk is well-established, the potential involvement of other bacteria has remained elusive until now.

Professor Joseph Sung, co-lead of the study and NTU's Senior Vice President for Health and Life Sciences, as well as the Dean of Lee Kong Chian School of Medicine, said that the study lays essential groundwork for future investigations in human subjects and could provide clinicians with invaluable insights to enhance the treatment and prevention strategies against gastric cancer driven by bacterial pathogens.

The implications of this research extend far beyond the laboratory, offering a glimmer of hope for millions of individuals worldwide grappling with the debilitating effects of stomach cancer.

As scientists continue to unravel the intricate interplay between microbial agents and human health, the quest for effective therapies and preventive measures against this deadly disease takes a significant leap forward.

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