

RESEARCHERS FIND NEW MULTI DRUG-RESISTANT BACTERIA IN SCAT OF VINE SNAKE

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A green vine snake in the Western Ghats Photo: Ramnath Chandrasekar

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A group of researchers from Pune and Chandigarh has discovered new “multi drug-resistant” bacteria from the scats of vine snake, a mildly venomous reptile, commonly found in Northern Western Ghats.

According to the team, the newly-isolated bacteria are resistant to at least 35 types of antibiotics.

This collaborative research work, [published in the journal](#) *Antonie Van Leeuwenhoek*, is carried out by researchers from Shri Shiv Chhatrapati College, Junnar; National Centre for Microbial Resource; National Centre for Cell Science, Pune; Microbial Type Culture Collection, and CSIR-Institute of Microbial Technology, Chandigarh.

Ravindra Chaudhari, one of the researchers, said the microorganisms present in scats of animals can very easily come in contact with human beings and other animals through water flow during rainy season and also through air.

New species of vine snakes discovered

"The bacteria reported here comes under family Planococcaceae and some species of this family are pathogenic in nature, so it is important to identify the bacteria in snakes because they can cause infectious diseases," he said.

"Recently, it has been observed that the Chinese krait and the Chinese cobra may be the original source of coronavirus. When the researchers performed a more detailed bioinformatics analysis of the sequence of 2019-nCoV, it suggests that this coronavirus might have come from snakes," he claimed.

He added that the World Health Organization (WHO) recently claimed that 70% of infectious diseases will cause due to microorganisms from wildlife. "So it is better we start a research into that direction and make some anti-biotic medicines, which will be helpful for humans," added Dr. Chaudhari.

Yogesh Shouche, another researcher from the NCCS, said that many bacteria, including those which are multi drug-resistant in snakes, lead to wound infection after the snake bites. "In some serious cases, patients may suffer from cellulitis, tissues necrosis, finger or toe gangrene, and/or extensive necrotizing fasciitis. To avoid such type of infections, antibiotic therapy is the only way. However, these newly-isolated bacteria are resistant to antibiotic drugs, which is a cause of serious concern," he said.

New vine snake discovered in Odisha biosphere reserve

He further added that a few species and strains of *Planococcus* have been demonstrated to be

pathogenic to other animals. Some species lead to an outbreak of necrotic hepatitis in chickens. Some of the species and strains of *Planococcus* are found in bronchial biopsy in a child with cystic fibrosis. "We are focusing on the study of the pathogenicity of these bacteria in relation to humans as well as other animals," said Dr. Shouche.

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'The current data from India and other countries indicate that re-infections are rare. However, in some cases, it may occur any time beyond three months after recovery from COVID-19,' says N.K. Arora

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