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Acid Reflux Induced Laryngospasm as a Potential Mechanism of Sudden Death in Epilepsy

Research has identified a mechanism causing sudden death from laryngospasm in an epilepsy model and developed a solution that eliminates this risk, offering critical insights for preventing sudden unexpected death in epilepsy (SUDEP) and other sudden death scenarios.

There is growing evidence that laryngospasm may be linked to sudden unexpected death in epilepsy (SUDEP). There are an estimated 3.4 million Americans, including 470,000 children, living with epilepsy. Approximately 30% of seizures cannot be controlled by medication, and uncontrolled seizures are the primary risk factor for SUDEP. The exact cause of SUDEP is unknown, but laryngospasm has been proposed as a potential cause; therefore, there is a need for research to explore the causes of laryngospasm.

Researchers at Purdue University have developed research into the causes of laryngospasms and its link with epilepsy. This research confirmed that sudden death due to laryngospasm in the kainic acid model of epilepsy is always preceded by a certain mechanism, and a method to eliminate sudden death has also been developed. This knowledge may inform future research into sudden death epilepsy and may contribute to the hypothesis that has been presented. This mechanism may be important in other mechanisms of sudden death.

Advantages:

-Elimination of SUDEP

-Inform future research

-Important for other mechanisms of sudden death

Potential Applications:

-SUDEP

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Category

Biotechnology & Life Sciences/Biomarker Discovery & Diagnostics

Pharmaceuticals/Drug Discovery & Development

Authors

Ryan Budde

Pedro Irazoqui

Daniel Pederson

Further information

Patrick Finnerty

pwfinnerty@prf.org

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-Laryngospasm

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