

Study: Celecoxib can cause arrhythmias

January 15 2008

U.S. medical researchers have determined the anti-inflammatory drug celecoxib (Celebrex) can adversely affect heart rhythm in fruit fly and rat models.

COX-2 inhibitors such as celecoxib have come under scrutiny due to adverse cardiovascular side-effects stemming from COX-2 reduction. But the new study found the drug-induced arrhythmia is independent of the COX-2 enzyme.

Satpal Singh and colleagues at the State University of New York at Buffalo tested various celecoxib doses on the heart rate of the fruit fly *Drosophila*. They found celecoxib reduced heart rate and increased beating irregularities.

The finding was a surprise, the researchers said, since *Drosophila* do not have COX-2 enzymes. Rather, the scientists said, celecoxib might directly inhibit the potassium channels that help generate the electric current that drives heartbeat.

Singh and colleagues note that since the arrhythmia effects bypass COX-2, it is unclear if other COX-2 inhibitors would yield similar results. They also stress it is too early to speculate on human effects.

The research appears in the *Journal of Biological Chemistry*.

Copyright 2008 by United Press International

Citation: Study: Celecoxib can cause arrhythmias (2008, January 15) retrieved 23 May 2024 from <https://medicalxpress.com/news/2008-01-celecoxib-arrhythmias.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.