Open-Chested Animal Teaching Video of Myocardial Infarction

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Technology description

Myocardial infarctions are a leading cause of illness and death, yet there are no interactive media materials available to students or health professionals that demonstrate the events accompanying a heart attack or explain the mechanistic basis of heart attack symptoms and treatments. Using high-quality videotape, a team of medical researchers, practitioners and educators has developed an interactive CD-ROM showing the effects of arterial blockage in an open-chest, pig model of myocardial infarction and the accompanying changes in the electrocardiogram and blood pressure. The videotape shows an exposed, beating heart in which an attack is induced by placing a clamp on the left-anterior, descending coronary artery, to block blood flow.

The main objectives of the CD-ROM are to demonstrate the physical changes in the heart during myocardial infarction; provide mechanistic explanations for these changes; and illustrate the physiological basis for common therapeutic interventions for heart attacks. The CD also provides animations of common tools and procedures for diagnosis and monitoring; video of surgical procedures both preceding and during open-heart surgery; a glossary of terms; and a comprehensive set of test questions.
The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in an open-chested animal teaching video of myocardial infarction.

Application area

Provides an interactive learning tool for understanding the pathophysiology of heart attacks and the mechanistic basis of therapeutic interventions
Simulates real-world decision-making by allowing users to choose various interventions during the course of the heart attack

Advantages

Target audiences include medical and veterinary students, students enrolled in EMS and EMT training programs, and other health professionals and first-responders.
At each stage of the myocardial infarction demonstration, users can answer questions to test their factual recall and conceptual understanding of the material.
Students are provided with explanations of both right and wrong answers to questions.

Institution

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