Pain management: Therapeutic and non-therapeutic interventions

Pain management, an integral part of therapeutics and clinical medicine has evolved immensely over the years and now to a certain extent integrates prescribed and complementary and alternative medicine. The physiology and pathology of pain whether peripheral or central, involves nociception and transmission from the injured tissue-skin, muscle or viscera. Pain associated with trauma and terminal diseases requires aggressive control beyond the inhibition of the inflammatory mediators such as the prostaglandins; afferent fibers, spinal cord sensory cells and chemical mediators play a pivotal role. Pain management, which to a great extent is based on patient response and the pain scale, is associated with a Step-up approach relating to the type of pain and underlying pathophysiology. Traditionally, non-steroidal anti-inflammatory drugs have been the mainstay of treatment. However, failure of Nonsteroidal Anti-inflammatory Drugs (NSAID) to treat pain or more chronic conditions require a Step-up 1 approach which would then introduce the opioids which address central mechanisms and are also used to treat severe pain, particularly those associated with terminal illness and myocardial infarcts. The mechanisms of action of opioids are similar; however, they differ in pharmacokinetic parameters. Complementary and alternative medicine (CAM) has now become a widely accepted approach to pain management either with prescribed medications or as an alternative. That fact remains that the mechanism of action and pharmacokinetic and parameters of these agents are not fully elucidated. This presentation addresses the use of both prescribed medications and CAM in pain management.

Biography

Bimal Roy Krishna is currently Professor and Director of Pharmacology at the College of Osteopathic Medicine, Touro University in Nevada. He obtained a Bachelor of Science (First Class Honors) in Pharmacology and Physiology and a Doctor of Philosophy, Medicine (OB/GYN/Pharmacology) from Monash University in Australia. He also teaches for the Step 1 USMLE and COMLEX reviews for Kaplan Medical throughout the United States and in UAE, Europe, Saudi Arabia, India, Mexico and the Caribbean. He has been teaching online for Kaplan University for over seven years. He has contributed to numerous publications and is a Member of a number of organizations including Fellow-American College of Clinical Pharmacology. His research background is in Maternal and Neonatal Pharmacology, specifically looking at materno-fetal transfer utilizing the perfused human placental and cultured syncytiotrophoblast model. Complementary and Alternative Medicine is another area of his interest.

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