Opioids and pain management

Pain management is an integral part of therapeutics and clinical medicine. The physiology and pathology of pain whether peripheral or central involves nociception and transmission from the injured tissue-skin, muscle or viscera, afferent fibers, spinal cord sensory cells and chemical mediators play a pivotal role. Pain management is associated with a Step Up approach relating to the type of pain and underlying pathophysiology. Traditionally, Non-Steroidal Anti-Inflammatory Drugs (NSAID’s) have been the mainstay of treatment. However failure of NSAID’s to treat pain or more chronic conditions require a Step Up approach which would then introduce the opioids. Opioid analgesics 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. Conditions such as trigeminal neuralgia, neuropathic pain, multiple sclerosis, cerebral palsy, fibromyalgia and diabetic neuropathy are addressed differently. These conditions involve the use of Carbamazepine, Gabapentin, TCA’s and SSRIs to name a few. This presentation addresses the use of opioids and general approach for the treatment of these conditions.

Biography

Bimal Roy Krishna is currently a Professor and Director of Pharmacology at the College of Osteopathic Medicine, Touro University Nevada, USA. He has obtained his Bachelors of Science in Pharmacology and Physiology and Doctor of Philosophy 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 Caribbean. He has been teaching online for Kaplan University for over 7 years and has contributed to numerous publications and is a Member of a number of organizations including Fellow-American College of Clinical Pharmacology. His research concern is on maternal and neonatal pharmacology specifically looking at materno-fetal transfer utilizing the perfused human placental and cultured syncytiotrophoblast model.

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