Opioids : Mechanism of action, tolerance, toxicity and addiction

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Opioids whether exogenous or endogenous share together the strategy of mechanism of action upon its specific receptor as agonist, antagonist,or agonist-antagonist together. Opioid receptor activation inhibits the presynaptic release and postsynaptic response to excitatory neurotransmitters from nociceptive neurons.The NMDA receptors and their role in reduction of opioid sensitivity is expressed together with morphine metabolites and their effect in production of analgesia.Addition to drugs represents a combination of tolerance, psychological
dependence and physical dependence. Tolerance is a state in which tissues become accustomed to the presence of a drug, so that increased quantities of the drug become necessary to produce effects observed with original doses. Drug interactions of opioids represent another keystone in perioperative management of narcotic patients. This study reflects highlights on opioids withdrawal syndrome and how it could be managed via methadone or clonidine therapy