Pain and Stress Response
(Pain Could Kill)

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Pain is one of the most stressful factors. Another very important factor is infection. With the discovery of muscle relaxants the idea of balanced anesthesia was established. The balance between loss of consciousness, muscle relaxation and analgesia was the aim of this type of anesthesia. Loss of consciousness was achieved by inhalational agents like Halothane, relaxation obtained by skeletal muscle relaxant such as D-tubocurarine. Good analgesia was neglected due to the phobia of respiratory depression so the patient will be paralyzed but not anaesthetized and feels pain. This is the most stressful factor under anesthesia.

Pain in the peri anesthetic period (before, during and after) will result in affection of most of the body systems. The main affection will be on the autonomic nervous and endocrinial systems. Release of adrenaline, nor adrenaline, cortisol, endorphins, enkephalins, insulin, glucagon, thyroxine, histamine, testosterone and antidiuretic hormone is present with subsequent results. These will be in the form of tachyacrdia, hypertension, dysrythmias, respiratory depression, acute respiratory distress syndrome, hyperglycemia, followed by hypoglycaemia, metabolic acidosis, salt and water retention, stress peptic ulcer, paralytic ileus, acute renal failure and bleeding tendency. All these complications are quit dangerous if present alone, so if present together will be fatal and the word (PAIN COULD KILL IS CORRECT).

Narcotic analgesics should be used in the proper dose. Do not give small dose of Morphine, pethidine or fentanyl. In the presence of acute Pain there are less liability of respiratory depression. So long you have an anesthetic machine and the operative time more than one hour, it is safe to give the full dose of opioid with out any fear but you are going to get the benefit of good analgesia. Recovery from anesthesia will be smooth. In the mean time spinal, epidural and local analgesia were found to be more efficient in blocking the stress response to trauma and surgery. More over local techniques are cheaper. But they need to know good knowledge of anatomy.

Immediate relief of pain and infection before operation is very important. The anesthetist should extend his work to the reception room and not to limit himself to the operating theater. Prophylactic anti biotics to stop the other factor to initiate stress will lower the incidence of complications up to death.