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## **DIFFERENT TYPES OF ANAESTHESIA IN CO-EXISTING DISEASES**

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**Relevance.** Different types of surgeries bring different type of challenges and complications and in order to solve them varied ways of anesthesia and pre-anesthetic remedies are done to avoid any kind of complication such as haemorrhage, poor perfusion, nerve damage, tissue ischemia and multi-organ disturbance.

**Aim:** to evaluate and find varied approach towards different type of surgeries such as cardiac surgeries, non-cardiac surgeries of patient with cardiac disease, renal diseases, hepatic disease, neurosurgeries, blood disorders, respiratory system diseases, neuromuscular diseases, endocrine disorders, bariatric surgeries, obstetric surgeries, , paediatrics surgeries, orthopaedic surgeries and laparoscopic surgeries .

**Materials and methods.** A retrospective analysis and data gathering of different norms and regulation regarding procedures of management done before surgery due to underlying disorder from The Associations of Surgeons of India <https://asiindia.org> and Indian Society of Anesthesiologist <https://www.isaweb.in> as well as textbooks such as Bailey and Love's Short Practice Of Surgery written by Williams O'Connell McCaskie and Anesthesia and Intensive Care A-Z written by Steve M Yentis, Nicholas P Hirsch, James K Ip. Some data was collected by sources as competitive examination coaching and different notes.

**Results and their discussion.** For patient with heart pathology going under cardiac surgeries, like rheumatic disease we give either epidural anesthesia or if general anesthesia is required we avoid sympathomimetic like ketamine, but in congenital heart diseases ketamine is the agent of choice and in case of regurgitation spinal anesthesia and for general anesthesia- atropine can be used. For cardiac patients having non cardiac surgeries induction agent of choice is intravenous etomidate, inhalation agent- isoflurane or sevoflurane. In cases of renal disease for induction we use propofol and for inhalation isoflurane or desflurane in order to avoid hypo perfusion of kidney. In the same way we use propofol and desflurane. But in case of neurosurgeries no sedative pre medications are given and muscle relaxant such as succinylcholine is avoided. In sickle cell anaemia we don't use intra venous regional anesthesia. In case of COPD regional anesthesia is preferred and for inhalation sevoflurane is used. In cases like myasthenia gravis we use short acting agents to avoid residual action. In DM we first rule out diabetic neuropathy and in case of hypothyroidism we use ketamine. Bariatric surgeries concerns for obese patients so we use propofol and desflurane. Spinal anesthesia is preferred in case of obstetric operation. In case of paediatric surgery we use sevoflurane or ketamine can also be used. In orthopaedic surgeries regional anesthesia and in laparoscopic surgeries we use short acting agents.

**Conclusion:** there are varied procedures so one must carefully study and note each and every variation so that a complication free surgery can be carried out in well fare of patient. Different types of agents have varied properties and co-existing illness should not be neglected.