



Perioperative management aspects of hypertension

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Abstract:

published by American Heart Association in 2017 redefined hypertension for general population, as systolic blood pressure more than or equal to 130 mm hg and diastolic blood pressure more than or equal to 80 mm hg (1). Hypertension can increase the risk of heart, brain, kidney and other complications. Hypertensive urgencies and emergencies are seen in approximately 50% of patients during and immediately after cardiac surgery. Hypertension in noncardiac surgery also a common finding and must be considered during perioperative period.

Multiple risk factors are involved, which can also increase the risk of perioperative complications. Early recognition of risk factors can help in life style modification and in selection of the anti-hypertensive medication and in deciding when to start the drug therapy.

According to the data published by WHO during 2019, approximately 1.13 billion people worldwide have hypertension (2). The prevalence in men is around 25% while in women it is nearly 20%. According to WHO one of the global targets for noncommunicable diseases is to reduce the prevalence of hypertension by 25% by 2025 (baseline 2010)(2).

It is a common practice to encounter patients with elevated blood pressure in the preoperative setting. Preoperative optimization is an important part of the caring team. Because these patients admit for a surgical indication, a preoperative work up for the fitness for anaesthesia is initiated and if the patients are hypertensive, they are evaluated by the physicians or cardiologists. Ideally, To avoid complications related to elevated blood pressure, it is desirable to control the blood pressure, before these patients can be considered fit for surgery, but there are chances of cancellation or postponing the surgical procedure if prehypertension, stage 1 and stage 2 patients are considered for strict blood pressure control. There is a minor risk in these patients and if a need arise blood pressure can be controlled intra or postoperatively with the available pharmacological agents. Stage 3 patients needs a preoperative control and antihypertensive therapy should be started if these patients are already not on any treatment. In case of emergency surgery, intravenous antihypertensive agents should be used and a careful monitoring perioperatively helps titration of the drug infusions.

In the operation theatre, induction of anaesthesia and endotracheal intubation is the time, blood pressure can elevate because



of light plane of anaesthesia and as a result of pressor response, during laryngoscopy and endotracheal intubation . The mechanisms can be more than one but it is a responsibility of the anesthesiologist in the operating room, to maintain the blood pressure in the desired normal range. Intraoperative period is also very important as blood pressure can elevate due to surgical stimulation or due to inadequate depth of anaesthesia, sub-optimal analgesia and inadequate relaxation. Once surgery is over, and extubation is planned, adequate preparation must be ensured to maintain the blood pressure in the normal range.

Key words: hypertension, perioperative.

Biography:

Aashish Jain is DNB FIACTA EDAIC MNAMS in trust fellow freeman Hospital in United Kingdom. Currently he is working as a Cardiac Anesthetist and specialized in critical care in Medanta - The Medicity Hospital. He completed his Masters and Graduation from European Society of Anaesthesiology.

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