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Fitness for Anesthesia: What does it really mean?

Anesthesiologist is the perioperative physician who provides medical care to the patients undergoing surgical and other procedures. The purpose of pre anaesthetic assessment is to assess the patient's fitness for anesthesia and the planned procedure. Unexpected cancellation of surgery distresses the patient and wastes valuable operating time and resources. The common reasons for this are inadequate control of pre-existing medical conditions, insufficient investigations and quantification of pre-existing medical conditions and new acute illnesses such as pulmonary infections. This is not to give a "medical clearance", but to assess the current medical status and optimize the patient as much as possible within the available period. Inadequate preoperative preparation is a significant factor for perioperative morbidity and mortality.

Once the surgery is planned, it is advisable to consult family physician to aid in the pre anesthetic assessment and relevant investigations to make the patient fit for the planned procedure. . Fitness depends upon the health of the patient, nature and urgency of the proposed procedure. When the surgery is life threatening or urgent, a different standard of fitness may be required compared with a non-life threatening elective procedure.

Every patient and their surgical procedures are unique. A healthy parturient for emergency caesarean section cannot be compared with a geriatric patient having multiple medical problems, coming for transurethral resection of the prostate gland. Hence, each patient for a particular procedure has to be assessed and investigated on an individual basis to assess their fitness for the procedure. Optimization of the pre-existing medical conditions with relevant investigations and quantification of the risk factors help in modifying the management to result in a better perioperative outcome. Onset of new acute illnesses such as respiratory tract infection, which affect the perioperative management, has also to be addressed.

The primary goals of preoperative evaluation and preparation are:

1. Evaluation of the surgical condition,
2. Assessment of the patient's overall health,
3. Optimization of preexisting medical conditions,
4. Preoperative risk stratification,
5. Planning appropriate preoperative care,
6. Educating the patient to reduce anxiety.

Pre-Anesthesia Assessment

Patient coming for a procedure may have other associated medical conditions which may affect their perioperative management. Anesthesiologist has to assess these, and arrive at a decision to give fitness to undergo the procedure. For this, a thorough clinical evaluation, investigations and interdisciplinary consultations are often needed, which would identify the risk factors and their preoperative management. This reduces the economic loss and inconvenience to the patient, physicians, nursing and hospital staff by avoiding delay and cancellation of the procedure. Anesthesiologist has also the responsibility to clear any concerns of the patient regarding their perioperative management.

History

This should include the current and past medical and surgical history, family history and personal history (smoking, alcohol). History of any allergy, drug therapy, reactions to drugs and complications with previous anesthetics should be sought. In children, the birth history, and history of recent respiratory tract infections are important. All current medications including herbal medicines and over the counter drugs has to be evaluated. Presence of loose tooth or crowns should be sought, which may require preoperative dental treatment. History of last meal is of particular importance, particularly before emergency procedures.

Physical examination

General physical examination and regarding the planned procedure should be followed by relevant examination based on the information obtained in the history. Assessment of airway, venous and arterial access and spine are of prime importance to the anesthesiologist. Documentation of vital signs with cardio respiratory status and other relevant systemic examination should be done.

Preoperative investigations

Routine laboratory tests in apparently healthy patients are not beneficial or cost effective. The clinician should consider the cost effectiveness and risk-benefit ratio of the ordered test. It should be based on the information obtained from the history and physical examination, age of the patient and nature of the planned procedure.

Medications

Generally, most of the drugs are continued up to the morning of operation (antiepileptic) and some may require dose adjustments (antihypertensive). Some drugs should be discontinued preoperatively. Monoamine oxidase inhibitors should be withdrawn 2-3 weeks before surgery because of the risk of drug interactions during anesthesia. Oral contraceptive pills are discontinued 6 weeks before surgery due to the risk of venous thrombosis. Oral anticoagulants should be stopped 4-5 days prior to invasive procedures, allowing INR to reach a level of 1.5 prior to surgery. Herbal drugs have to be stopped 2 weeks prior.

Perioperative risk assessment

It depends on the preoperative medical condition, nature of the procedure and the type of anesthetic administered. In 1963, the American Society of Anesthesiologists (ASA) adopted a five-category physical status classification system for assessing the fitness before anesthesia. For emergency surgery, the physical status classification is followed by "E", which increases risk. Emergency is defined as when delay in treatment would significantly increase the threat to the patient's life or body part. A sixth category was later added. These are:

1. Healthy person,
2. Mild systemic disease,
3. Severe systemic disease,
4. Severe systemic disease that is a constant threat to life,
5. Moribund person, not expected to survive without the surgery,
6. Brain dead patient awaiting organ retrieval.

Class "6E" does not exist as organ retrieval in brain-dead is done urgently.

ASA classification does not describe the general health status other than the condition that indicates the surgery. Neonates and elderly, even in the absence of any systemic disease, tolerate otherwise similar anesthetics poorly compared to young adults, which is not considered in this system. As 'E' for emergency, 'P' for pregnancy is suggested to the ASA score for the added risk.

Informed consent

After evaluation, the risk has to be discussed with the patient and the close relative, and informed consent to be obtained, after understanding the risks involved. The patient has the right to know about the various treatment options available to choose from. Proper advice should be given regarding the modification if any suggested to the current medications and treatment, the patient is on.

Finally, before taking the patient for the planned procedure, the anesthesiologist has to reconfirm the patient identity, the surgical procedure, the side and the site of operation. The relevant records and any fresh investigations suggested have to be reviewed. The fasting status of the patient and compliance to other preoperative instructions has to be ensured.

Thus, preanaesthetic evaluation is not just giving "fitness" for anesthesia, but should be the beginning of a comprehensive preoperative anesthetic care, considering the unique condition of each patient, and the procedure they are subjected to.

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