Material and Methods
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The present study was conducted on 60 young adult patients admitted in various surgical wards in M.L.B. Medical College and hospital, Jhansi.

Selection of cases

The patients selected for study were those kept for surgery by various surgical departments viz general surgery, gynaecology and orthopaedics. These patients belonged to ASA grade I and II, of either sex, between the age groups of 20-60 years.

Careful clinical history and physical examination was done to exclude any cardiovascular and respiratory disease and their age, sex, weight, baseline haemodynamic and respiratory variables were recorded. The patients suffering from any psychiatric illness and hypertension were excluded from the study. These patients were subjected to various routine investigations for that age group viz haemogram, blood sugar, blood urea, serum creatinine, urine for routine and microscopic examination, ECG and chest X-ray. The procedure and possible risks were explained to the patients as a part of an informed written consent for anaesthesia and surgery. Patients were kept
fasting 8 hours prior to surgery. These patients were allocated randomly into two groups as follows:

**Group-I** :- Patients were induced with propofol and ketamine.

**Group-II** :- Patients were induced with propofol and fentanyl.

Trade name of drugs used:

1. Profol 1% (Claris lifesciences limited)
2. Trofentyl (Troikaa Parenterals Pvt. Limited)
3. Ketamine (Neon Laboratories Limited)

**Premedication** : All patients were premedicated with:

- Injection glycopyrolate slow intravenous in the dose of 0.2mg, 5 minutes prior to surgery.
- Injection medazolam slow intravenous in the dose of 2.0mg, followed by injection glycopyrolate.

**Method**

Each patients was reviewed thoroughly before conduct of anaesthesia. Patients were placed in supine position and an intravenous line was established with 18 guage i.v. canula 5% dextrose. Necessary monitoring gazettes were connected to the patients, viz pulse oximeter
(ohmada) and non invasive blood pressure instrument pulse rate, arterial blood pressure, respiratory rate and arterial oxygen saturation were recorded. Now patients of both group were premedicated as mentioned earlier.

**Group-I**

Patients of group-I were induced with ketamine 0.5mg/Kg body weight over a period of 15 seconds followed by propofol 3mg/Kg body weight bolus till the end point of induction was reached (i.e. loss of consciousness and loss of eyelash reflex). Infusion of propofol at a rate of 3mg/minute was started immediately with infusion pump. When patient responds to pain, sweating, lacrimation, limb movements, a bolus of one fifth the original dose of ketamine was given. Airway maintained with head and neck positioning and spontaneous breathing was maintained with air. If oxygen saturation fell below 97% then 100% oxygen was given by mask, while patient breathing spontaneously.

**Group-II**

Patients of group-II were induced with fentanyl 1μg/Kg body weight over a period of 15 seconds followed by propofol 3mg/Kg body weight bolus till the end point of induction was reached (i.e. loss of consciousness and
loss of eyelash reflex). Infusion of propofol at a rate of 3mg/minute was started immediately with infusion pump. When patients responds to pain, viz increased heart rate, increased respiratory rate, sweating, lacrimation, limb movements a bolus of one fifth of original dose of fentanyl was given. Airway maintained with head and neck positioning and spontaneous breathing was maintained with air. If oxygen saturation fell below 97% then 100% oxygen was given by mask while patient breathing spontaneously.

The following parameters were observed and recorded.

- Induction time.
- Induction dose and total dose of propofol.
- Top up doses of ketamine and fentanyl.
- Continuous monitoring of pulse rate, arterial blood pressure, respiratory rate and arterial oxygen saturation was done throughout peri-operative period and readings were recorded at following time interval.
  - Before induction
  - One minute after induction
  - Five minutes after induction
  - Ten minutes after induction
- Twenty minutes after induction
- Immediate post-operative period.

- Recovery time: The time at which each patient was able to open the eyes, responds to verbal commands and able to tell his or her name after the withdraw of propofol infusion.

- Post operatively patients were enquired about acceptance. Patients were asked if they had slept well and asked about their experience pleasant or unpleasant during the recovery period.

- Post operative pain relief in immediate post-operative period judged by requirement of analgesic in immediate post operative period.

- Side effects or complications.