SUMMARY

Maintenance of anesthesia using only I.V agents has become popular in recent years, largely because of the availability of more suitable I.V. anesthetic drugs and advances in technology enabling development of computerized infusion pumps have combined to provide an impetus for increasing use of T.I.V.A.

T.I.V.A offers certain advantages over inhalation anesthetics. Propofol provides an attractive Induction and recovery characteristics; Rapid recovery with minimal hang over and a lower incidence of nausea and vomiting combine to reduce: demands on post operative care unit staff. T.I.V.A may be the technique of choice for certain neurosurgical procedures and may be the only option available where inhalational techniques are contraindicated. I.V. techniques do not cause atmospheric pollution or organ toxicity. Apart of pharmacokinetics and pharmacodynamics, the onset of effect of a drug is determined by the dose, rate of injection and by its **keo** {is the rate constant determined by the equilibration between the blood and affect site} .it would be advisable to choose drugs with large **keo** values if there is planning of rapid sequence induction. Interaction between I.V drugs are complex and with possible exception of ketamine, no one intravenous drug provides all the components of anaesthesia: hypnosis, analgesia and amnesia thus a combination of drugs commonly used and behave like a new drug with unique properties.

Awareness with T.I.V.A is not more common that with other anesthetic techniques. Mechanical problems, such as blocked or disconnected I.V lines and back flow, can be a cause of failure of delivery of anesthetic drug and y contribute to awareness.

Context – sensitive half time is the time taken for plasma concentration to decline by 50% after infusions of different duration designed to obtain and maintain a constant plasma concentration are meant to serve as guides for emergence from anesthesia. Several factors, clearance, volumes of distribution, and disease states influence recovery. It will become apparent that much is known of the effects of various I.V agents on the physiology of normal patients and even those with compromised systemic functions. In conclusion, it is possible to device total intravenous anaesthesia regimens by the addition of hypnotics or anesthetics agent, which may be given by infusion to a combination of muscle relaxant and opioids. The use of opioids to supplement anaesthesia increases the incidence of respiratory depression in spontaneously and hypotension ,due to vasodilatation in ventilated patient if the hypnotic drugs are used in the same way as inhalation agents , then good quality anaesthesia, which is safe for the poor risk patient , maybe achieved.

There are difference between the intravenous agents with regard to speed of elimination by metabolism from the body and these factors must be borne in mind when designing a total I.V. anesthetic technique for the high risk patient who may have compromised hepatic and renal function. In many cases, patients have to be returned to a normal ward and even if they are admitted to the intensive care, good recovery of airway cardiovascular and respiratory control will contribute to a lower incidence of morbidity and mortality in this group of patients.