Introduction

Anesthesia has revolutionized surgical and medical procedures, allowing for pain-free interventions and facilitating complex treatments that would otherwise be unbearable or impossible. Since the rst successful use of ether in the 19th century, anesthesia has progressed signi cantly, with various methods and agents developed to ensure patient comfort and safety. Today, anesthesia is categorized into three primary types—general, regional, and local—each with speci c indications, bene ts, and limitations. e development of newer anesthetic drugs and the re nement of techniques have minimized the risks involved, but challenges remain, particularly in patient selection, management of comorbidities, and the prevention of adverse e ects [1].

Description

General anesthesia involves the administration of medications that induce a reversible state of unconsciousness, ensuring complete analgesia and immobility during surgery. is method is commonly used for invasive procedures and requires close monitoring of vital signs such as heart rate, blood pressure, and respiratory function. Regional anesthesia, on the other hand, targets speci c areas of the body to block sensation, typically used for procedures like joint replacements or cesarean sections. Local anesthesia is the least invasive and is used for minor surgical interventions, where only the area to be treated is numbed. e evolution of anesthetic agents has seen the advent of intravenous medications like propofol, ketamine, and dexmedetomidine, alongside inhalational agents such as sevo urane and des urane, each o ering distinct pharmacokinetic pro les and safety considerations [2,3].

 e administration of anesthesia requires a deep understanding

concern is the increasing prevalence of outpatient surgeries, which