Migraine is associated with side effects like anorexia, nausea, vomiting, photophobia, and phonophobia. Worldwide, Migraine is the fifth leading cause of disability which is three times more common among females than males, with peak prevalence occurring between early and middle adulthood. One-third of patients with migraine experience aura, that is, transient focal neurological symptoms like sensory or motor deficits. Individual attacks generally last from 4 to 72 hours and can recur at a frequency ranging from five lifetime attacks to an unrelenting daily experience. Migraine affects people of all ages, races, cultures, geographical locations and socioeconomic status and is substantially more prevalent than Alzheimer’s, Parkinson’s disease, and epilepsy. Current figures suggest that 18% of women and six percent of men suffer from migraine and those numbers are increasing. The Center for Disease Control reported a 60% increase in the disease from 1980 to 1989. The highest incidence of migraine occurs between the ages of 20 and 35 and often associated with a positive family history of the disease.

Migraine headache is approximately three times more common among females than males, with peak prevalence occurring between early and middle adulthood. In a survey of US households, over 25% of women aged 18-44 reported having a migraine/severe headache in the past three months.

The primary goal of migraine pharmacology is to reduce the impact and disability of both the attack and the frequency of migraine. This is best accomplished when the patient is confident with the diagnosis of migraine, and has been educated to understand the nuances and complexities of treatment.

Since migraine is a common illness, it imposes an enormous health burden on both patient and society. Work and productivity losses represent 80% to 89% of the economic burden of migraine. Intractable migraine presents a significant treatment challenge to both patient and physician.

Low oral bioavailability, headache recurrence, short half-life (tin), patient compliance, side effects occurred orally and contraindication in patients with coronary
artery disease have stimulated the search and design of second-generation 5-HT_{1B} and 5-HT_{1D} receptor agonists by a number of pharmaceutical firms.

The large list of such compounds is still growing, but those that are marked and available for the treatment are Almotriptan, Zolmitriptam, Sumatriptan, Naratriptan, Fravotriptan, Rizatriptan and Eletriptan. Drugs are selected on the basis of their biological half life, bioavailability and kinetic profile of the drug.

Oral route is considered to be the most convenient and cheap route of drug administration but owning to its inefficiencies such as poor bioavailability, first pass metabolism, drug solubility and absorption issues, there is an obvious need for alternative but novel systems for drug delivery. Parenteral routes of administration like subcutaneous route is another alternative but the dislike of injection make this dosage form less acceptable for the patient. The percutaneous route is also used for controlled delivery of drugs which bypasses the first pass metabolism, but has limitations for permeability of the skin to many drugs. As an preferred alternative to this, transmucosal routes including the nasal, buccal, pulmonary, rectal and vaginal routes can be used to overcome above mentioned issues wherein, intranasal route of drug delivery could serve the advantage of improving bioavailability, improved permeation, bypass first pass metabolism, ease of self-administration and handling and can even be administered to patients in vomiting and unconscious state. Moreover, recent advancement has revealed that the nasal mucosa can act as the site for directly delivering the therapeutics to the CNS through the olfactory lobes, which helps to circumvent the blood brain barrier.

As the nanocarriers are agents used for targeting particular organs and tissues. Research has revealed the usefulness of the nanocarriers in targeting, improved compliance, improved bioavailability and efficacy there is need to develop a nano formulation for targeting brain and simultaneously provide sustained release of drug. One such approach is nano ethosomal drug delivery system where it is hypothesized that drug can bypass blood brain barrier via olfactory lobes pathway. Further, thermoreversible gel formulation of drug loaded ethosomes could provide a final dosage form for sustained release intranasal delivery of antimigraine drugs.