



BMH Medical Journal 2014;1(4):77-78 **Brief Review**

A Short Profile On Centbucridine

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Almost after a century of its introduction, local anesthesia remains one of the most important methods to relieve pain in perioperative medicine. They can find their uses in different forms, i.e. as part of general anesthesia, in regional anesthesia, in plexus block or as local infiltration anesthesia itself.

Many local anesthetics have been introduced since 1884, from cocaine, which was administered on eye as a local anesthetic to relatively newer drugs like ropivacaine, levo-bupivacaine, etc.; having their own advantages and disadvantages.

Research always looks forward to find a drug with better safety profile in terms of cardiovascular (CV) and Central Nervous System (CNS) toxicity, with enhanced anesthetic efficiency and with increased nociceptive selectivity.

Central Drug Research Institute, Lucknow, formulated a new drug called centbucridine (by Patnaik et al [3]) in 1983. This new drug came into existence because of the need of a drug that offers better safety profile and less side effects.

Local anesthetics generally belong to either amide or ester group. However, centbucridine doesn't belong to either of them. It is a quinolone derivative, its IUPAC nomenclature [3] being 4-N-butylamino-1,2,3,4-tetrahydroacridine hydrochloride.

Because of its safety profile, centbucridine [1-3] is used extensively in various procedures as an infiltrator, nerve blocks, subarachnoid blocks 0.5%, intravenous regional anesthesia, etc. It is also used as a topical anesthetic in ophthalmic surgeries. Various studies were done comparing centbucridine and lignocaine. Centbucridine was found to be 4 to 5 times more potent than lignocaine. The onset of action of centbucridine was much quicker (14 seconds more [3]) and the action of centbucridine persisted longer than lignocaine.

Lignocaine [1] and bupivacaine are associated with CNS and CV toxicity, respectively. On the other hand, centbucridine was found to be safer as it does not affect CNS and CV parameters, except when very high dosage is used.

The most important advantage of centbucridine is that it can be given without adrenaline because of

its vasoconstrictor property. Hence, it can be given in conditions where there is contraindication [4] to adrenaline. Moreover, it can also be given in conditions where there is hypersensitivity to lignocaine.

Thus, it can be said that centbucridine is a new, promising drug with better safety profile. More research as well as clinical trials has to be done to prove its worth in day to day anesthetic practice.

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