septodont

Anesthetics

The World Leader In Dental Pain Management

Septodont Healthcare India Pvt Ltd

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We Make Pain-free Dentistry Possible

We envision a future where every tooth is saved and every dental treatment is painless. With our ever-growing range of world-class pain management and therapeutic dental products, we are supporting dentists as they bring that vision to life.

The world leader in dental pain management

Nothing influences patient satisfaction more than their experience of pain. We empower dentists to achieve pain-free treatment, an elevated patient experience, and reliable practice growth

MANAGING PAIN FOR **YOUR PRACTICE**

20 cartridges manufactured by Septodont are injected every second worldwide.

Approved by

150 Government Health Agencies world wide !

Including the Most Stringent Ones !

USA | JAPAN | INDIA | EUROPEAN UNION | FRANCE | BRAZIL | CHINA

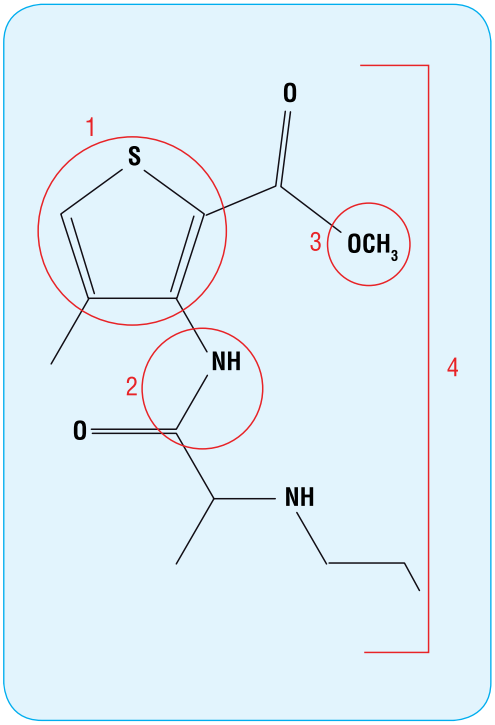
Team of 100+ Quality Control Experts

Articaine

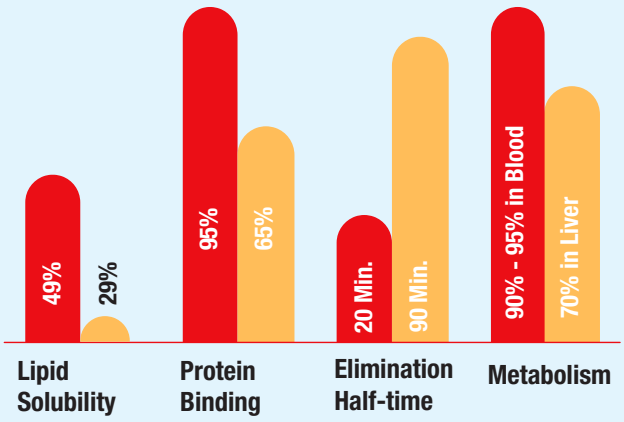
Originally introduced for clinical use in Europe in 1976 and in UK in 1998, articaine has become a leading local anaesthetic in almost every country into which it has been introduced.

- Germany: 96.8% of injectables used in dentistry(1).
- USA: 32.4% of injectables used in dentistry(2).
- UK: 27% of injectables used in dentistry(2).

Why is that?



	Features	Advantages	Benefits
1. Thiophen ring	Increased liposolubility	Increased potency Increased diffusion	Less volume required = SAFETY
2. Amide	pKa closer from physiological pH	Quick Onset	Less waiting time
3. Ester	Increased degradation in plasma by esterases	Short plasmatic half-time	Increased tolerability = SAFETY
4. 3D structure	Increased protein binding	95% binded to protein	longer duration of anaesthetic effect



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[1] Malamed, SF. Local Anesthetics: Dentist's Most Important Drugs, Clinical Update, CDA Journal 2006; 34: 971-976.

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[4] Ali, SG, Mulay, S. Articaine vs Lidocaine: A review. IOSR Journal of Dental and Medical Sciences 2014; 33: 417-425.

[5] Oertel R, Rahn R, Kirch W. Clinical pharmacokinetics of articaine. Clin Pharmacokinet 1997; 33: 417-425.

[6] Haas DA, Lennon D. A 21-year retrospective study of reports of paresthesia following local anesthetic drug articaine. Regional Anesth Pain Med 1999; 24: 524-528.

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(1) Source: GFK data 2009
(2) Source: SDM data 2009

Why choosing Septanest?

pH: 4 to 5,5 (day of manufacture)	Avoids the problems of longer onset and more painful injections correlated to lower pH levels
100% latex free	Increased peace of mind for the practitioner end the patient, knowing that all components and the manufacturing process are totally latex-free, regarding patient allergy
Terminal sterilization	Septodont's manufacturing process includes a "terminal sterilization" stage that guarantees dental professionals and patients the highest degree of sterility, for safety
Worldwide approval	Production expertise approved by Government Health Agencies throughout the world including the most stringent ones
Mylar wrapped cartridges	Eliminates risk of shattering, for increased safety

DO YOU KNOW THAT?

SEPTANEST IS THE MOST TRUSTED BRAND WORLDWIDE ...

- Every second, 9 injections are performed with Septanest® throughout the world **
- Septanest® is registered and approved by 150 Health Authorities around the world

Articaine

Septanest characteristics

Onset	1,5 - 3,6 min
Plasmatic Half-life	20-40 min
Protein binding	95%

Duration of anesthesia

	1:100 Epi
Pulpal	60-75 min
Tissue	180-360 min

Maximum dosage

Adult: 7.0mg/kg Child: 5.0mg/kg	7 cartridges of 1.8ml (70kg adult)

Clinical superiority

Articaine vs Lidocaine in mandibular buccal infiltration

Maruthingal, et al.: A comparative evaluation of 4% articaine and 2% lidocaine

J Int Soc Prev Community Dent. 2015 Nov-Dec;5(6):463-9

Materials and Methods:

All subjects received 1.7 ml of any one anesthetic in the mucobuccal fold adjacent to mandibular first molar teeth; the same individuals received the second infiltration at least 1 week after the first.

Later, comparisons for pulpal anesthesia, lip and lingual mucosa numbness between these two anesthetics solutions were made.

Materials used in the study

4% Articaine HCl with 1:100000 adrenaline (Septanest, Septodont, Saint-Maur-des-Fossés France)

2% Lignocaine HCl with 1:100000 adrenaline (Xylocaine, Astra Zeneca Pharma, UK)

Disposable syringe with 1 5/8 inch, 25 gauge needle

Pulp Tester (Gentle-Pulse™ Pulp Vitality Tester Parkell, Edgewood, NY, USA

Result:

The study sample consisted of **32 patients**, which was decided according to power calculation. The sample consisted of **7 males (21.9%) and 25 females (78.1%),** with the mean age 18.2 years. No adverse events were recorded during any visit

Twenty-eight patients, i.e. **87.5%,** experienced **anesthetic success** (i.e., two or more consecutive episodes of no sensation at maximum stimulation) **after 4% articaine** injection with a mean time of onset 6.92 min, compared with 17 patients, i.e. **53.1%**, after **2% lidocaine** injection with a mean time of onset 10.35 min.

Percentage of success, mean and SD of pulpal anaesthesia of 32 patients in both groups

	No	Y	N	% of success	Mean	SD
Lidocaine	32	17	15	53.12	10.352	4.54
Articaine	32	28	4	87.5	6.928	3.463

SD=Standard deviation

Percentage of success, mean and SD of lip numbness of 32 patients in both groups

	No	Y	N	% of success	Mean	SD
Lidocaine	32	32	0	100	4.937	1.366
Articaine	32	32	0	100	3.562	1.664

SD=Standard deviation

Percentage of success, mean and SD of lingual mucosa numbness of 32 patients in both

	No	Y	N	% of success	Mean	SD
Lidocaine	32	15	17	46.875	10.533	2.825
Articaine	32	24	8	75	9.291	4.016

SD=Standard deviation

Clinical superiority

Is articaine more effective than lidocaine in patients with irreversible pulpitis

Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2009;107:359-363

Objective:
To identify whether articaine or lidocaine is the most appropriate local anaesthetic solution for teeth with irreversible pulpitis undergoing root canal treatment.

Study appraisal and synthesis methods

The quality of the included reviews was appraised by two independent reviewers using the AMSTAR tool (a measurement tool to assess systematic reviews). Each of the 11 AMSTAR items was given a score of 1 if the specific criterion was met, or 0 if the criterion was not met or the information was unclear.

Results:

According to the VAS scores, the pain of injection between buccal infiltration without a separate palatal injection and routine administration with additional palatal injection was statistically significant (P .05). However, the VAS scores for permanent maxillary tooth removal showed no significant difference between the 2 types of injection (P .05). All patients described both extractions as "acceptable" and no patient requested an additional palatal injection to ensure comfortable extraction.

Pulpal anaesthesia:

Three reviews reported that articaine had a 1.15–2.3 times greater success rate than lidocaine (Kung et al. 2015, Su et al. 2016, St George et al. 2018), whereas Brandt et al. (2011) concluded there was no difference between the solutions. Nagendrababu et al. (2019) included eight clinical trials in their meta-analysis and concluded that articaine had a 1.16 times higher anaesthetic success rate than lidocaine, when the solutions were delivered as an IANB.

Pain during injection:

Su et al. (2016) reported that articaine was associated with a lower pain (VAS) score during injection than lidocaine; however, these data were taken from only one clinical trial (Kanaa et al. 2012).

Onset of anaesthesia:

Su et al. (2016), taking into account the outcome of a meta-analyses from four pooled clinical trials, reported that articaine was associated with a more rapid onset of pulpal anaesthesia than lidocaine.

Conclusion:

Articaine is more effective than lidocaine for local anaesthesia of teeth with irreversible pulpitis undergoing root canal treatment. There is limited evidence that injection of articaine is less painful, has more rapid onset and has fewer adverse events compared with lidocaine.