

## The Slightest Care Amounting to Life – Xylocard a Must have in Your Small Dental Practice

Shiad Salim, Arathy BT\*, Azna sadique, Krishnaa S, Sruthila S, Theertha SL

Department of Oral and Maxillofacial Surgery, PMS College of Dental Science and Research, Kerala, India

### ABSTRACT

Local anesthetics are a valuable tool in modern medicine and dentistry. The first local anesthetic is cocaine. In the early 1900s, lidocaine was introduced as a safer alternative to cocaine. Understanding the essential pharmacology of local anesthetics is crucial for healthcare professionals involved in administering these medications. Regular updates and continuing education can help ensure safe and effective use of these important medications. The purpose of this review article is to provide a review and update of the use of xylocard in routine dental practice.

**Keywords:** Xylocard, Lignocaine, Local anesthetics, Heart patients, Asthmatic patients, COPD, Propofol, Tramadol

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**Corresponding author:** Arathy BT

**e-mail** ✉: aznasadique2017@gamil.com

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### INTRODUCTION

Xylocard is a brand name for the medication lidocaine, which is a local anesthetic commonly used in routine dental practice. Xylocard 100 solution contains lidocaine (lignocaine) hydrochloride 2% as the active ingredient. It also contains the inactive ingredients sodium chloride, sodium hydroxide, and water for injections. Xylocard 500 and Xylocard 1000 solutions contain lidocaine (lignocaine) hydrochloride 10% as the active ingredient. Lidocaine is used to anesthetize the area around a tooth or a specific region in the mouth during a dental procedure to reduce pain and discomfort for the patient.

Lidocaine works by blocking the transmission of pain signals from the nerve endings in the area where it is applied. It is available in various forms such as a gel, spray, or injection.

In routine dental practice, xylocard is typically used for procedures such as filling cavities, root canal treatment, and tooth extractions. The use of xylocard helps to reduce the pain associated with these procedures, making them more comfortable for the patient.

While xylocard is generally considered safe and effective, it may have some side effects, such as numbness or

tingling in the mouth or face, dizziness, or headache. These side effects are usually temporary and go away once the medication wears off.

Overall, xylocard is a valuable tool in routine dental practice, helping to make procedures more comfortable and less painful for patients. It is important to follow proper dosage guidelines and monitor patients for any potential side effects to ensure the best possible outcomes [1].

### Xylocard in Heart Patients

Xylocard is a medication used to treat certain heart rhythm disorders, such as ventricular tachycardia and ventricular fibrillation. It is usually administered by injection directly into the bloodstream or added to fluids given through a vein. This allows it to reach the heart quickly, where it will reduce the excitability of the heart and help return the heartbeat to normal.

Once in the bloodstream, Xylocard works by blocking the signals that cause the heart to beat too fast and irregularly. This helps to reduce the excitability of the heart and restore a normal heartbeat. The medication also has a numbing effect, which can help to relieve pain or discomfort that may be associated with certain heart procedures or conditions [2].

Xylocard should be used with caution in patients with certain medical conditions such as,

Bradycardia (a slower than normal heart rate).

Severe digitalis intoxication (toxic levels of the medication digoxin).

First or second-degree heart block in the absence of a

pacemaker (abnormalities in the electrical conduction of the heart).

Hypokalemia (low levels of potassium in the blood).

These conditions may increase the risk of certain side effects associated with Xylocard, such as heart rhythm disturbances or cardiac arrest. In some cases, Xylocard may be contraindicated in patients with these conditions.

It is important for patients to inform their doctor of any medical conditions they have or medications they are taking before starting treatment with Xylocard. This will help the doctor determine if Xylocard is an appropriate treatment option and ensure that it is used safely and effectively.

It's important to note that Xylocard should only be used under the guidance and supervision of a healthcare professional [3].

### **Xylocard in Asthmatic Patients**

Xylocard (lidocaine) is generally considered safe for use in asthmatic patients, although it may cause respiratory side effects in some individuals with pre-existing respiratory conditions. While Xylocard is a local anesthetic that is commonly used in dental and medical procedures, it is also sometimes used to treat certain types of asthma that do not respond well to other treatments. In these cases, Xylocard is administered by inhalation or intravenous infusion, and it works by relaxing the smooth muscles in the airways and reducing inflammation. However, Xylocard can also cause side effects that affect the respiratory system, such as wheezing, shortness of breath, and coughing. These side effects are generally mild and transient and may be more likely to occur in patients with pre-existing respiratory conditions such as asthma or chronic obstructive pulmonary disease (COPD).

Therefore, if you have asthma or another respiratory condition, it is important to inform your healthcare provider before using Xylocard or any other medications, as they can help to determine if it is safe for you to use and monitor you for any potential side effects.

### **Comparison of Xylocard and Tramadol**

Based on the results of a study, it appears that Xylocard is more effective at reducing the incidence of pain on Propofol injection compared to tramadol. The study was conducted on 100 patients undergoing general anesthesia, who were randomly assigned to receive either

Xylocard or tramadol prior to Propofol injection. Pain on injection was recorded and analyzed using statistical tests, and the results showed that the incidence of pain was significantly lower in the Xylocard group (14%) compared to the tramadol group (36%) [4].

It's important to note that this study only looked at pain reduction for Propofol injection and did not compare the overall efficacy or safety of Xylocard and tramadol in other contexts. Additionally, the study was conducted on a specific population (ASA grade I and II patients between the ages of 15-45), so the results may not be generalizable to other patient populations. Nevertheless, these findings suggest that Xylocard may be a more effective choice for reducing pain associated with Propofol injection in this particular group of patients [5].

### **CONCLUSION**

Although Xylocard is an effective medication, it is important to be aware of the potential risks. The instructions given by the health care provider should always be followed when using xylocard or any other medication. Usage of xylocard is found to be safe in asthmatic patients, but some individuals with preexisting respiratory conditions may experience respiratory side effects. In patients with certain heart conditions, Xylocard should be used with caution. In comparison to tramadol, Xylocard reduces pain more effectively on Propofol injections.

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