

Is Xylocaine Test Dose Mandatory Prior To Surgical Procedure? - A 4 Year Observational Study in A Teaching Medical College Hospital



Medical Science

KEYWORDS : Xylocaine test dose, surgery preoperative precautions, surgery preparation

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ABSTRACT

Xylocaine is the common local anaesthetic used in our surgical practice. And is routine practice to give a test dose for all the patients prior to any surgical procedure. We have analysed 2469 patients and no such reaction to the drug in our practice and hence we like to present our findings to our peers to further validate our finding and have a consensus for an evidence based practice in our surgical practice regarding the requirement of xylocaine test dose in our practice and teaching the young doctors.

Introduction:

The practice in a hospital is to give a tetanus toxoid injection and xylocaine test dose. Tetanus prophylaxis has a definite indication, but xylocaine test dose is it mandatory.

Methods and materials:

It is a 4 year prospective observational study in the tertiary teaching medical college hospital.

All patients as a routine standard test dose given on the left forearm, 0.1ml of 2% xylocaine intradermally. And observation made at 15minutes, 30minutes and post operative 7th day in the wards or at OPD on follow up. And the observations noted in the record.

Inclusion criteria:

All patients who underwent surgical procedure in our teaching hospital and received an intradermal xylocaine test dose from 2000 to 2015.

Exclusion criteria:

Those not willing to participate in the study And patients who lost follow up Departments of casualty, medicine and dentistry excluded.

Patient who had received test dose recently, topical application, ointments and spray excluded

Results:

A total of 2469 patients were analysed in our study population From the study group we had 1265 major surgeries and 1204 minor surgeries (figure 1) in total after the exclusions criteria.

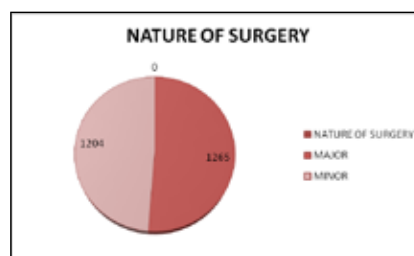


Figure 1: nature of surgery

In our group a predominance of male population 51% and 49% female population (figure 2) was observed.

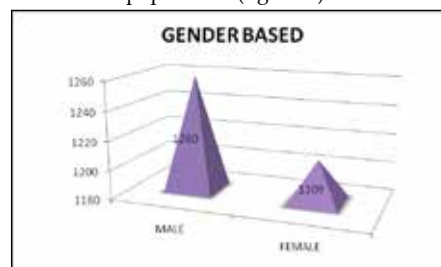


Figure 2 Gender distribution

The majority of the cases 410, 463 and 503 belong to age group between 31-40, 41-50 and 51-60 respectively.

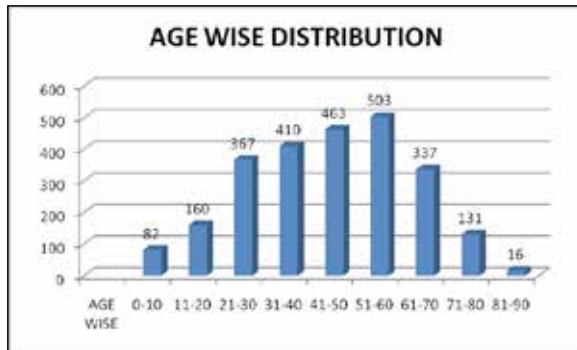


Figure 3 Age wise representation

We had cases from surgery, Obstetrics and gynaecology, orthopaedics, otolaryngology and ophthalmology as well.

The department of orthopaedics had majority of the cases 833 followed by surgery 769 (table 1).

Table 1 department wise distribution

| Department | Number of the Surgery |
|----------------------------|-----------------------|
| Orthopaedics | 833 |
| Surgery | 769 |
| Ophthalmology | 458 |
| Obstetrics and gynaecology | 264 |
| Otolaryngology | 145 |

Cost of a test dose (table 1)

Table 2 cost of test dose

| Sl.No | Materials used | Cost of the material /per patient | Expenditure (material cost X sample size) | |
|-------|------------------------|-----------------------------------|---|-------|
| 1. | Disposable syringe 2ml | 4 rupees | 4 X 2469 | 9876 |
| 2. | Xylocaine 2% | 0.1-0.2Ml | 0.2Ml X 2469 = 494ml | 510 |
| 3. | Cotton swab | 1-2 | 0.25 paisa X 2469 | 617 |
| 4. | Spirit | 2ml | 0.25 paisa X 2469 | 617 |
| | | | | 11620 |

Observations and Conclusion:

In our observation in our two thousand four hundred and sixty nine cases we have seen. We have found no reaction to xylocaine test dose nor for the full dose give for the necessary surgery.

But the expense due the procedure can be used in an effective manner for the better care of the patient. And uncharted issues related to Health care provider - 1. Clinician waits minimum of 30 minutes prior to the procedure 2. Nurses have an additional procedure prior to the main procedure.

Patients - 1. Need to wait about 30 minutes prior to the treatment, 2. The treatment of non allergic complications

like pain, risk of infection of the test dose site etc.

Delay in treatment of the other waiting patients need to consider seriously.

The clinician, the nurse and the fellow patient's time is priceless and is consumed due to the want of space for the test dose.

We in our study group have found that a xylocaine test dose is consuming resources and valuable time which can be used in a productive manner. Hence we like to recommend that a routine use of xylocaine test dose is not mandatory.

And the practice of routine use of xylocaine test dose needs to be reconsidered.

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