



Modified Intra Thecal Digital Nerve Block in A & E

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Aim: the objective of this study was to evaluate and analyse the effectiveness of intra thecal digital nerve block among the patients who attended emergency dept.

Methodology: This study was conducted on a sample of 100 patients of age between 15 –68 years who attended casualty of ACS medical college hospital during April 2013- December 2014. The same Anaesthesiologist performed all blocks. The data were analysed.

Results: The effectiveness of the block was 100% with minimal morbidity.

Study methodology:

Study design:

This study was done to evaluate the effectiveness of intra thecal digital block.

Materials and methods.

Patients (age 15 years- 68 years with mean of 36.3) with isolated fingertip injuries (except little finger)- work spot injuries (lacerations, crushed wounds & cut wounds), trap door injuries, domiciliary injuries (knife & Kitchen Machines induced) and retained foreign bodies who attended ACS Medical College Hospital were included in this study.

After the clinical examination and relevant investigations in the Operating Room under strict aseptic precautions 2cc of 2% xylocaine (after test dose) is injected with 24 gauge needle into the flexor tendon sheath at the level proximal to the proximal inter phalangeal joint. Pain during infiltration was assessed using a visual analogue scale and verbal response score.

Inclusion criteria:

All isolated finger tip trauma between the age of 15- 68 years

Male and female

Exclusion criteria

Finger tip injuries associated with other injuries Little finger injuries were excluded

Presence of infection

Hypothesis:

Intra thecal digital block is a simple and effective method of pain relief during procedures for fingertip injuries except little finger.

VISUAL ANALOGUE SCORE done for the patients for age more than 15 years (90 patients) and analysed

Score 0-3 45
Score 4-6 30
More than 6 15

The time to loss of pinprick sensation and extent of analgesia recorded for all the patients and analysed. After achieving satisfactory analgesia the surgical procedure was carried out. The patient was re evaluated for finger pain after 24 hours as outpatient/ in the ward.

Data analysis:

Pain during infiltration

Visual analogue score done for the patients for age more than 20 years (90 patients)

Time to loss of pinprick sensation

Time to achieve analgesia

Pain after 24 hrs

The data collected were coded, tabulated and analysed

Biological variants

Male 74, female 26

Age variants

11-20 years 8
21- 30 years 22
31-40 years 46
41-50 years 13
51-60 years 6
More than 60 years 3

Result:

All the blocks were successful **VISUAL ANALOGUE SCORING** was done to assess the amount of pain during infection was done for the patients for age more than 20 years (90 patients).

Score 0-3 45
Score 4-6 30
More than 6 15
Onset of analgesia starts in 12 seconds to 65 seconds (mean 19.4)

Extent—palmar aspect of the finger distal to the injection site, nail & nail bed complex and dorsum of the hand distal to the distal inter phalangeal joint.

Complete analgesia was achieved in 42 – 204 seconds (mean 159.9).

The surgical procedure time was between fifteen minutes to one hour fifteen minutes. The mean was 42.4 minutes.

After 24 hours 7 of our patients complained of pain in the finger (ASA score between 0-3). Otherwise there was no complication related to the injection.

Discussion:

When compared to the conventional subcutaneous technique injection of the local analgesia, this Intra thecal injection route has the following advantages.

- Simple and easy to learn the technique
- Single injection
- 100% Effective

- Safe-No significant morbidity with the procedure and the risk of injury to the neurovascular bundle is remote.

With our experience we conclude that Intra thecal local analgesia is the choice to relieve pain over the finger tip and nail bed lacerations without infection.

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