



**PEDIATRIC DENTISTRY DISCIPLINE**  
**UMF „VICTOR BABES” TIMISOARA**

**PRACTICAL CLASS 14.1, 14.2**

# **ANXIETY AND PAIN MANAGEMENT**



# **PAIN MANAGEMENT**

- Local Anaesthesia
- General Anaesthesia

# **ANXIETY MANAGEMENT**

- Behaviour Management
- Sedation



# LOCAL ANAESTHESIA

- temporary suppression of painful sensitivity (+ thermal sensation, tactile and motor function) in a given area
- Techniques:
  - **truncular anaesthesia** (for anesthetizing large areas – less used in pediatric dentistry)
  - **local infiltration** (used for most procedures)
  - **intraligamentary anaesthesia**



# LOCAL ANAESTHESIA

- **Procedures that require the use of LA in paedodontics:**
  - extraction of primary teeth in stage II or III with partial resorption
  - Extraction of permanent teeth
  - pulpotomy
  - pulpectomy
  - tooth preparation for cementing pediatric crowns
  - soft tissue surgery



# LOCAL ANAESTHESIA

- **Topical Anaesthesia:**
  - Lidocaine spray/ Benzocaine gel
  - on the dried mucosa
  - time of action: 2 minutes



# LOCAL ANAESTHESIA

- **Procedures that can be done using topical anaesthesia:**
  - extraction of primary teeth in stage III, with complete mobility and resorption
  - the puncture of a purulent collection
  - anesthesia of the marginal gingiva before dam clamp application
  - pre-anesthesia at the site of anesthetic puncture



# LOCAL ANAESTHESIA

- **LOCAL INFILTRATION**

Techniques used in pedodontics - alternatives to palatal anesthesia

## 1. Intrapapillary anesthesia

- in addition to a vestibular local infiltration
- penetrate the papilla with the needle ,1-2 mm perpendicular to the papilla (from the vestibular side) and inject slowly (~ 30sec) until ischemia occurs along the palatal marginal gingiva
- it is performed in both M-D papillae



# LOCAL ANAESTHESIA

- **LOCAL INFILTRATION**

Techniques used in pedodontics - alternatives to palatal anesthesia

## **1. Intrapapillary anesthesia**

It is used for:

- fixing the dam clamp
- preparation / cementing of a pediatric crown
- extraction of temporary incisors / canines





# LOCAL ANAESTHESIA

- **LOCAL INFILTRATION**

Techniques used in pedodontics - alternatives to palatal anesthesia

## **2. Indirect palatal infiltration**

- similar to the technique used in intrapapillary anesthesia
- deeper than the intrapapillary technique
- used for the extraction of temporary maxillary molars



# LOCAL ANAESTHESIA

- **LOCAL INFILTRATION**

Techniques used in pedodontics - alternatives to palatal anesthesia

## **2. Indirect palatal infiltration**

- advance deeper and upwards with the needle through the papilla, under the interdental contact, until the contact with the palatal fibromucosa, where the anesthetic is deposited, until the ischemia of the palatal mucosa is observed
- after the installation of anesthesia, it can be completed with direct palatal infiltration



# LOCAL ANAESTHESIA

- LOCAL INFILTRATION

Techniques used in pedodontics for the anaesthesia of lower primary molars

**THE RULE OF 10** (only for mandibular primary molars!) – considers the age of the child

*Number of the tooth + age (in years) = X*

$X \leq 10 \rightarrow$  local infiltration

$X > 10 \rightarrow$  Spix anaesthesia

*Example: for the extraction of tooth 8.5 in a 4 year old, we calculate as follows:  $5+4=9$*

$9 < 10 \rightarrow$  therefore we choose **local infiltration**



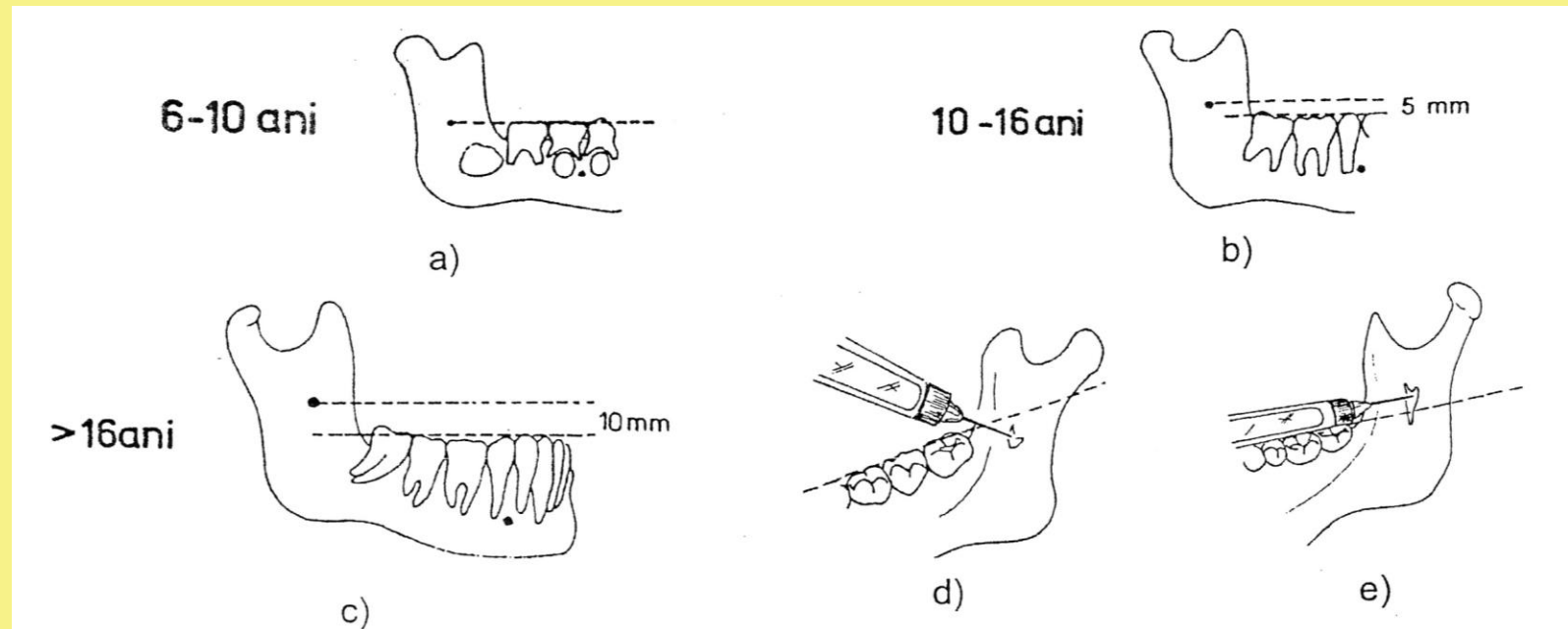
# LOCAL ANAESTHESIA

## • LOCAL INFILTRATION

Techniques used in pedodontics for the anaesthesia of lower primary molars

## SPIX ANAESTHESIA

- the position of the mandibular foramen in children varies with age!!





# LOCAL ANAESTHESIA

- **INTRALIGAMENTARY ANESTHESIA**

## Advantages:

- anesthetizes only one tooth
- the soft tissues are not numb, therefore the risk of post-anaesthesia trauma is diminished

## Disadvantages:

- intense pain during the procedure due to the high injection pressure
- risk of necrosis



# **DENTAL ANXIETY**

## **CAUSES of anxiety about the dental act:**

- previous traumatic experiences
- fear induced by parents/relatives, through threats or stories of unpleasant personal experiences
- fear of the unknown



# **DENTAL ANXIETY**

## **Means of reducing DENTAL ENXIETY:**

- behaviour management (non-pharmacological)
- pharmacological sedation (including nitrous-oxide sedation)



# **DENTAL ANXIETY**

## **Behaviour Management:**

- getting to know the patient
- adaptation and staging of the treatment according to the child's needs
- proper use of behavioural management techniques
- psychological counselling





# DENTAL ANXIETY

## Pharmacological Sedation:

- used if non-pharmacological methods of behavioural management are ineffective
- requires thorough general examination and medical history

## Indications of nitrous-oxide sedation:

- anxious / very agitated patients
- reduced cooperation
- excessive vomiting reflex
- patients with special needs
- long treatment sessions

## Contraindications:

- respiratory diseases
- asthma
- Immunosuppressed patients



# GENERAL ANAESTHESIA

## INDICATIONS:

- uncooperative patients
- patients with special needs

## REQUIREMENTS:

- operator block
- qualified staff
- postoperative supervision
- complete general clinical examination
- paraclinical examinations