

SURGICAL MANAGEMENT OF ODONTOGENIC CYSTS

SE Arc-Állcsont-Szájsebészeti és Fogászati Klinika
BUDAPEST



DEFINITION

A cyst is a **sac** with walls of **connective tissue**, lined by **epithelium**, containing **fluid** or soft material

- expands, doesn't infiltrates
- caused by developmental disturbance or inflammation

CLASSIFICATION OF CYSTS (WHO)

CAUSED BY DEVELOPMENTAL DISTURBANCES

Odontogenic

- ✖ Follicular cyst
- ✖ Primordial cyst /Keratocyst
- ✖ Perinatal cyst
- ✖ Adult gingival cyst
- ✖ Eruptional cyst

Non odontogenic (fissural cysts)

- ✖ Nasopalatine duct cyst
- ✖ Globulomaxillary cyst
- ✖ Median palatal or mandibular cyst

CAUSED BY INFLAMMATION

- ✖ Radicular cyst
- ✖ Residual cyst
- ✖ Parodontal cyst

Pseudocysts

- ▶ Simple bone cyst
- ▶ Aneurysmatic cyst
- ▶ Latent bone cyst

Soft part cysts

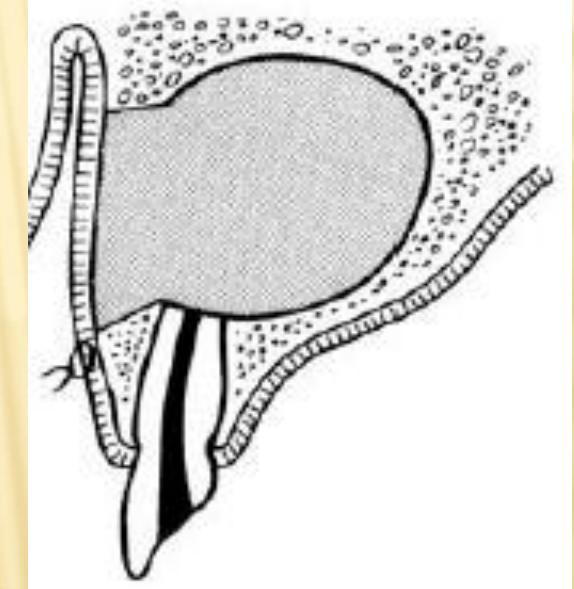
- ▶ Medial and lateral neck cyst
- ▶ Dermoid cyst
- ▶ Salivary retention cyst
- ▶ Nasolabial cyst

SURGICAL MANAGEMENT OF CYSTS

1. Cystectomy (Partsch II)

Enucleation and primary closure

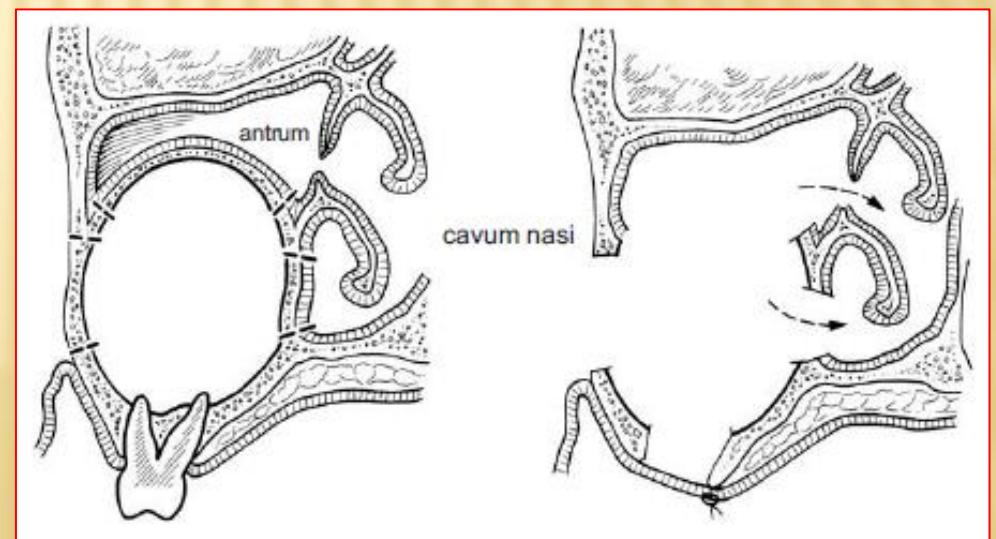
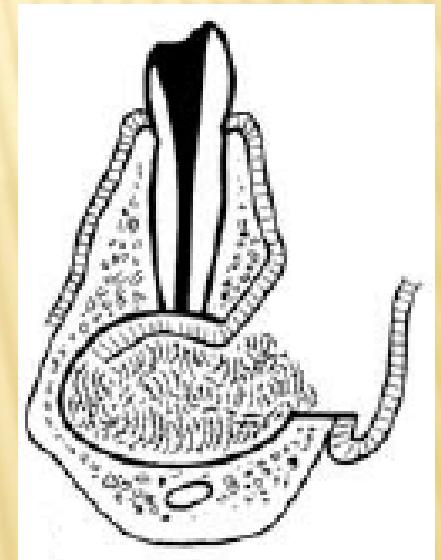
- ✖ healing with own blood coagulum
- ✖ materials stabilizing the blood coagulum
(biomaterials)



SURGICAL MANAGEMENT OF CYSTS

2. Cystostomy (Partsch I)

- ✖ Oral:
 - a.) with total enucleation
 - b.) with partial enucleation (marsupialization)
 - c.) fenestration /decompression/
- ✖ Antro-nasal



DEFINITIONS

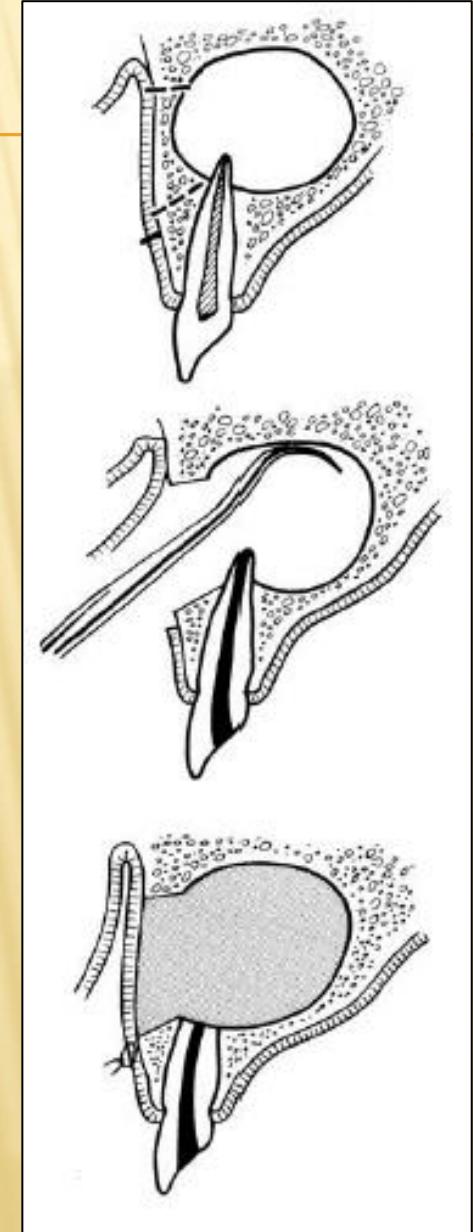
Cystostomy: The cyst is turned into an accessory cavity of the maxillary sinus the nasal or the oral cavity. Partial or complete removal of the capsule of the cyst. The bony cavity is covered by mucosal flap.

Marsupialisation: to achieve a permanent connection of the cyst and the surroundings – gauze strip, obturator. Preparation for cystectomy.

Decompression: to cease the pressure which is put on the surrounding tissues by the growing cyst

CYSTECTOMY (PARTSCH II)

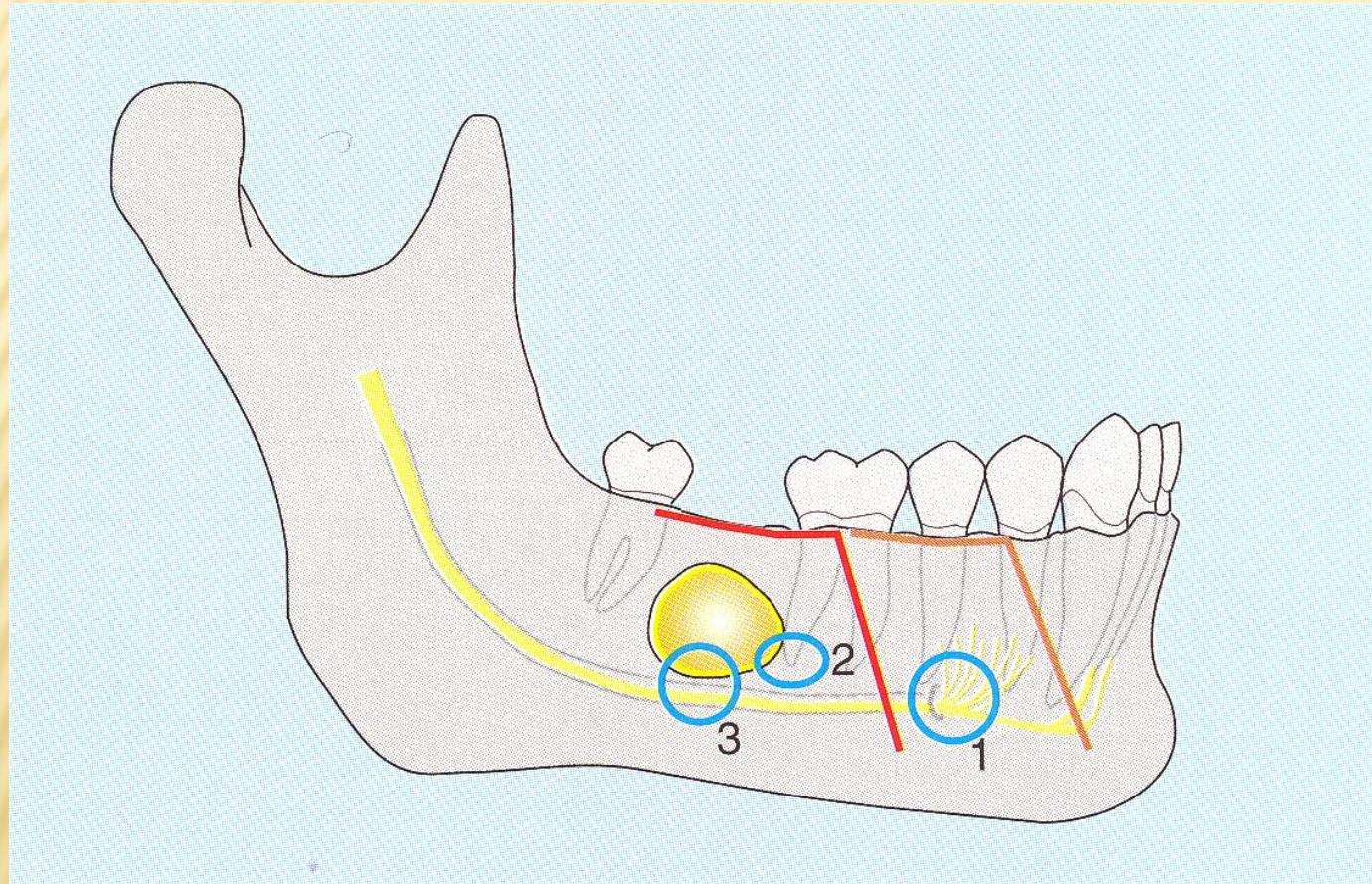
1. Mucoperiosteal flap
2. Bone window
3. Enucleating the cyst
4. Primary closure



CONTRAINDICATIONS OF CYSTECTOMY

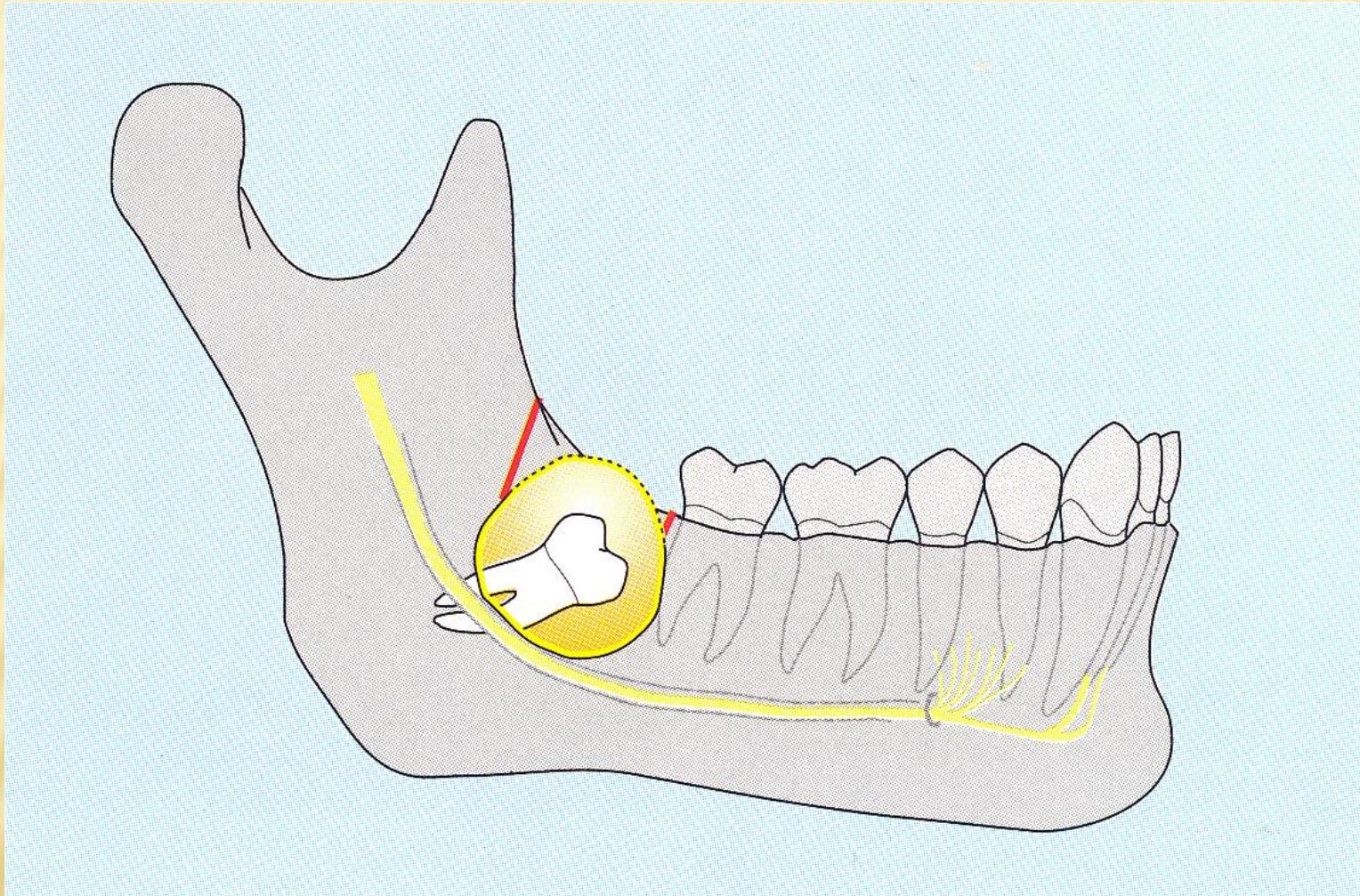
1. Larger than **2 cm** in diameter / without the use of bone-graft material /
2. In the case of possible injury of **important anatomical structures**
3. **Follicular cyst**, in the case of possible eruption of the tooth
4. Purulent infections

POSSIBLE COMPLICATIONS OF CYSTECTOMY

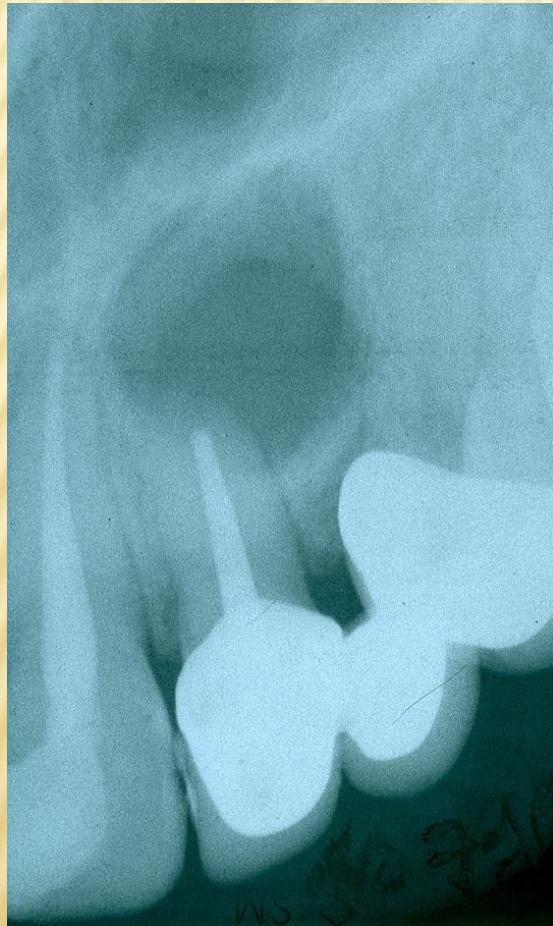


1. Foramen mentale
2. Apex
3. Canalis mandibulae

CYSTECTOMY AT FOLLICULAR CYST



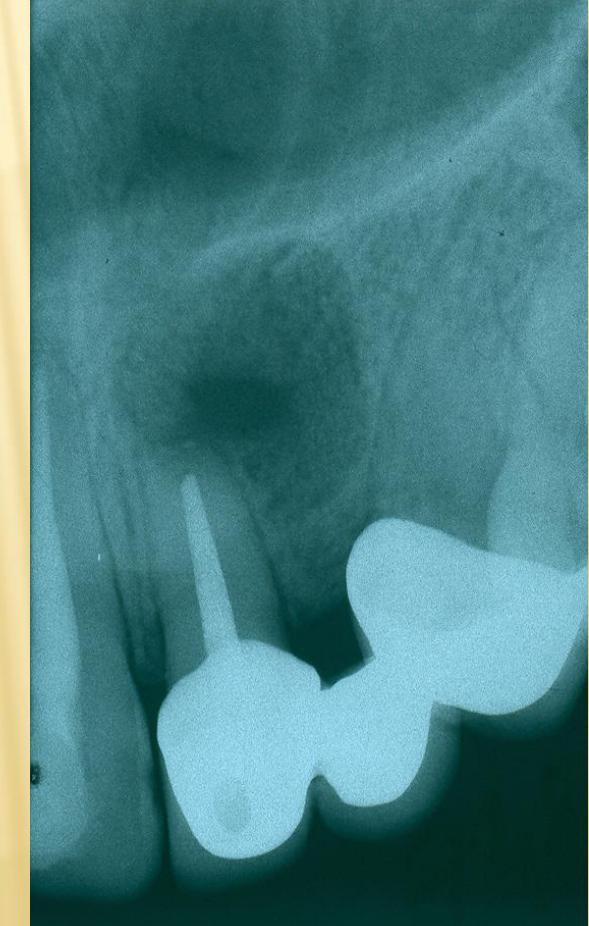
THE HEALING PROCESS AFTER THE REMOVAL OF RADICULAR CYST



2002.11.

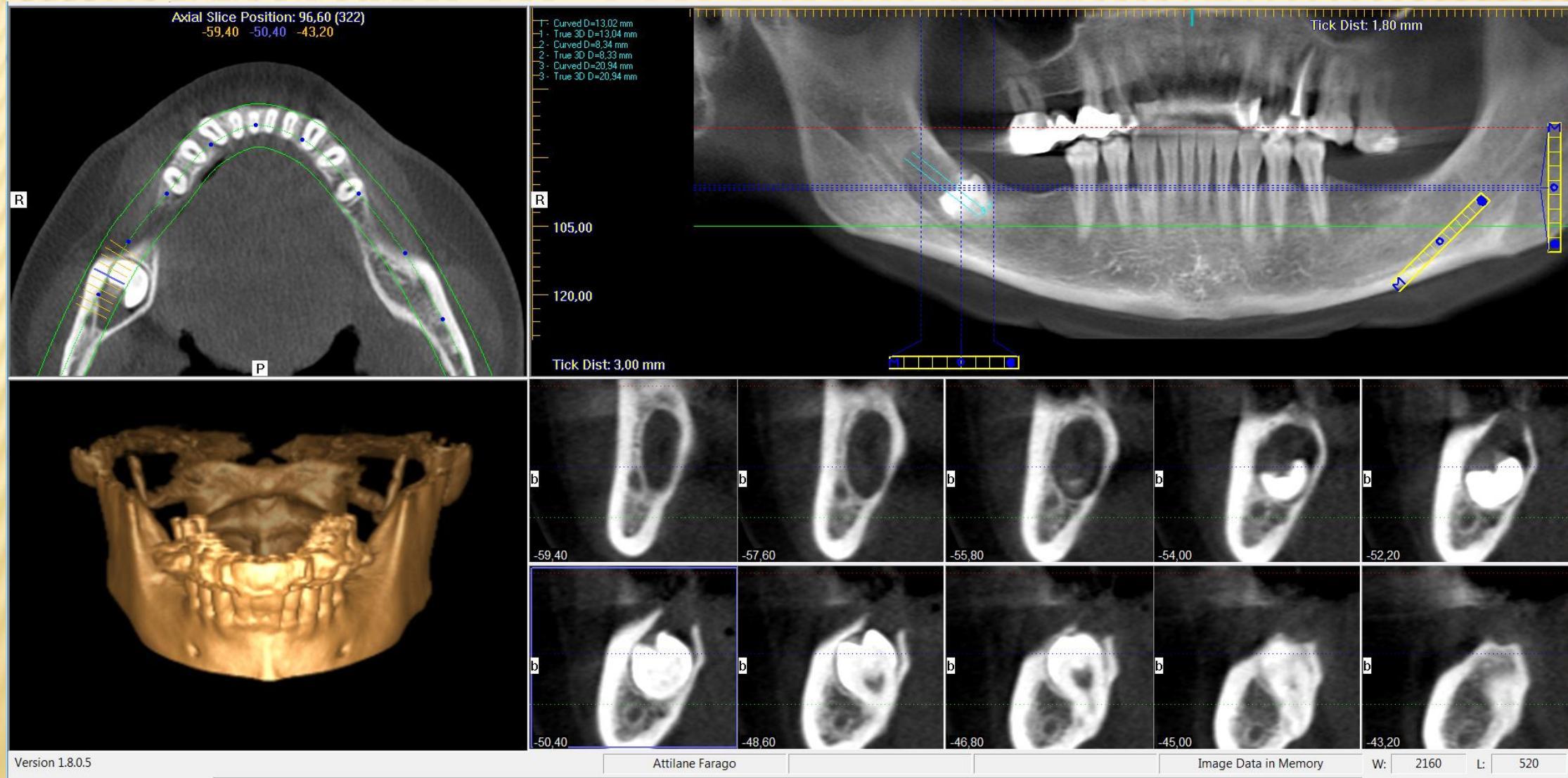


2003.02.



2003.07.

CYSTECTOMY OF FOLLICULAR CYST



CYSTECTOMY OF FOLLICULAR CYST



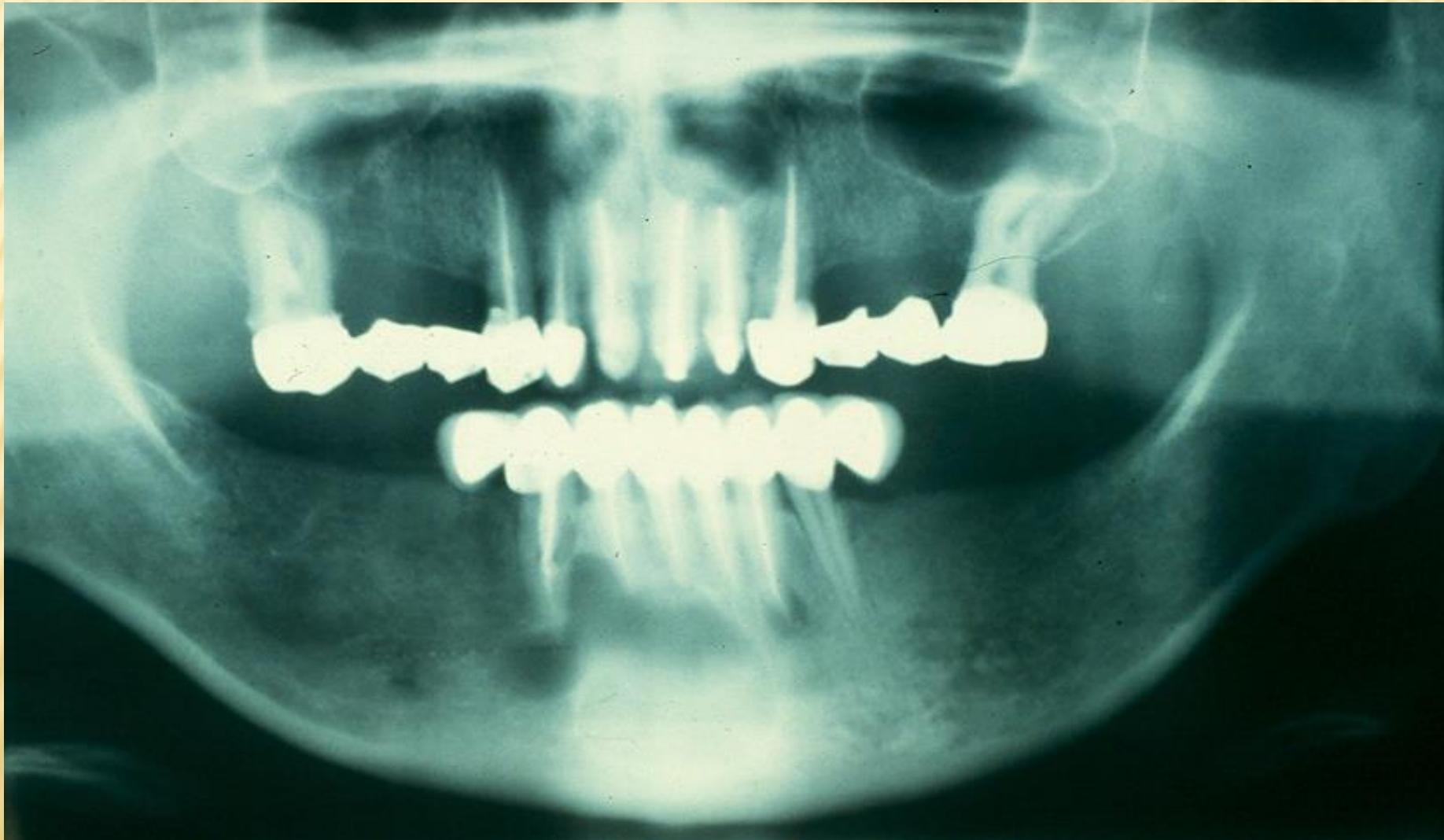
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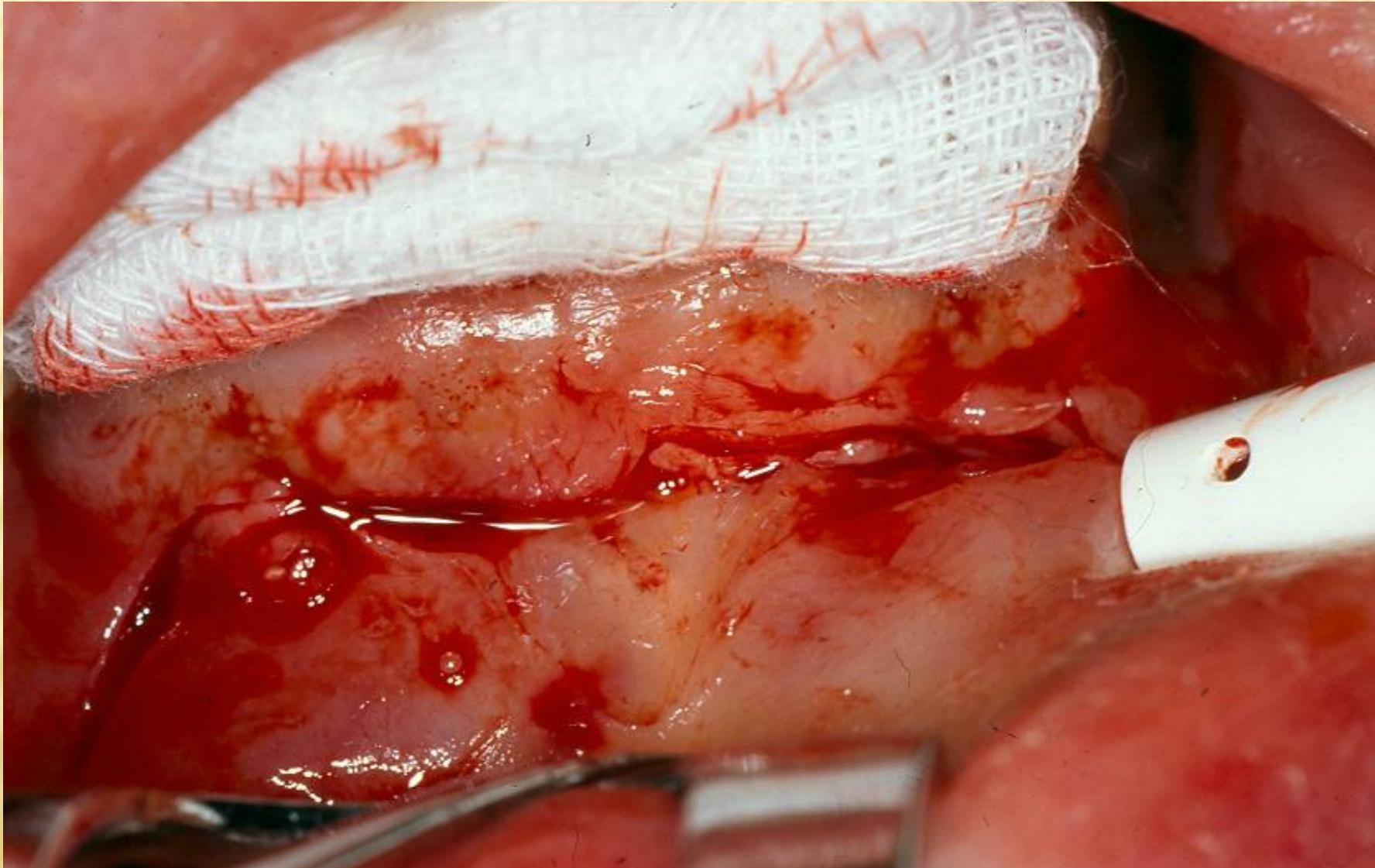
CYSTECTOMY OF RADICULAR CYST



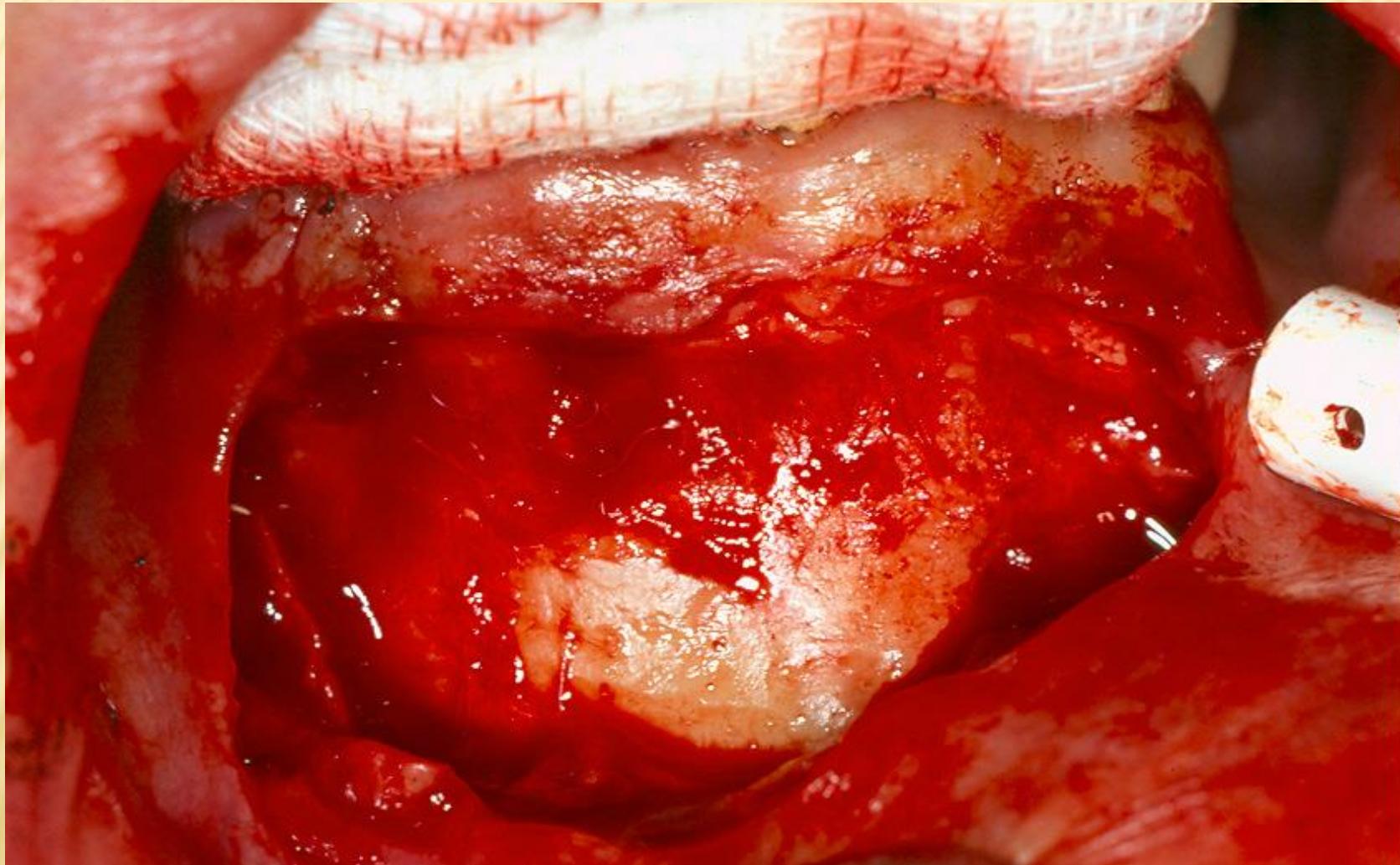
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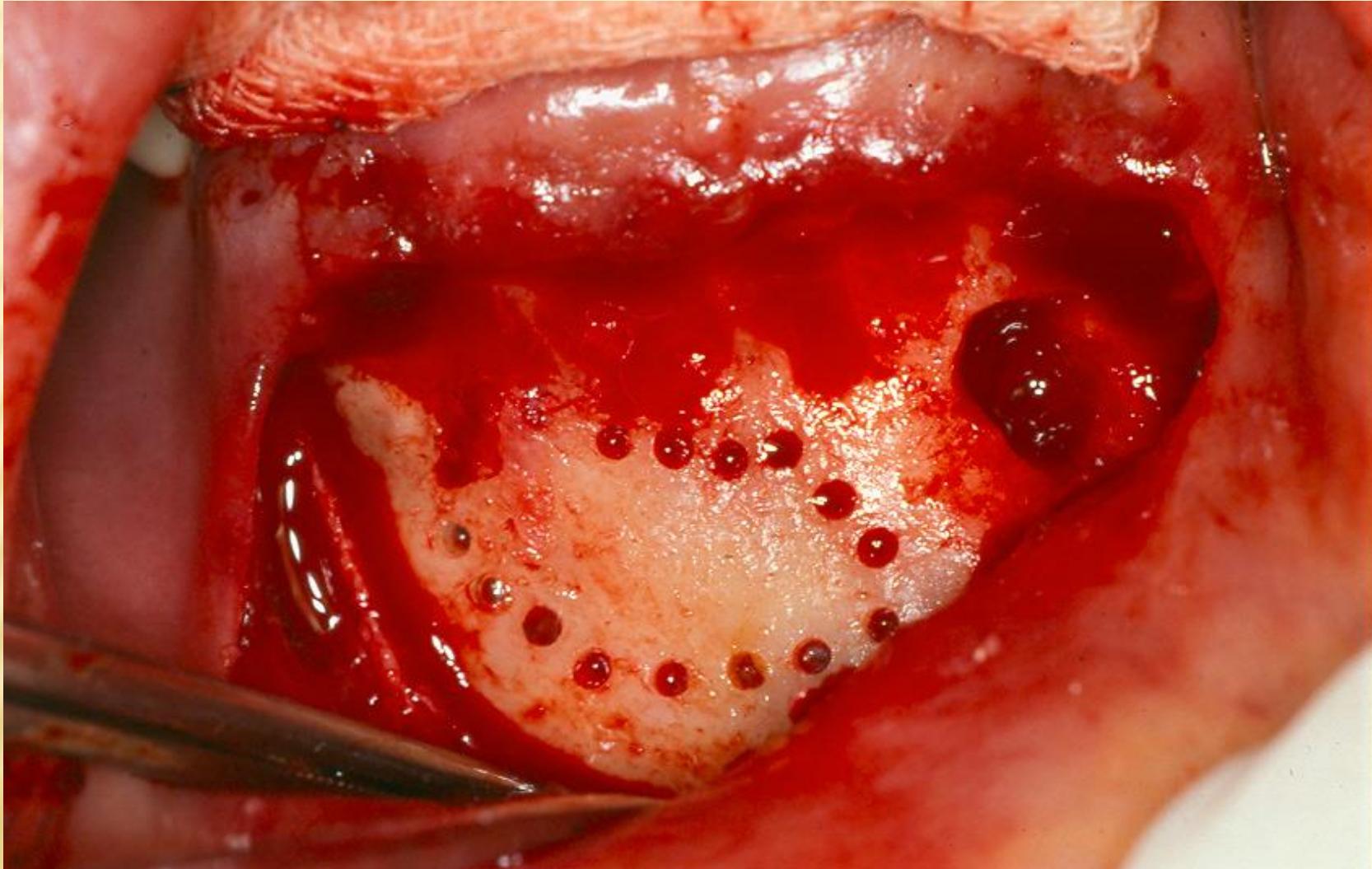
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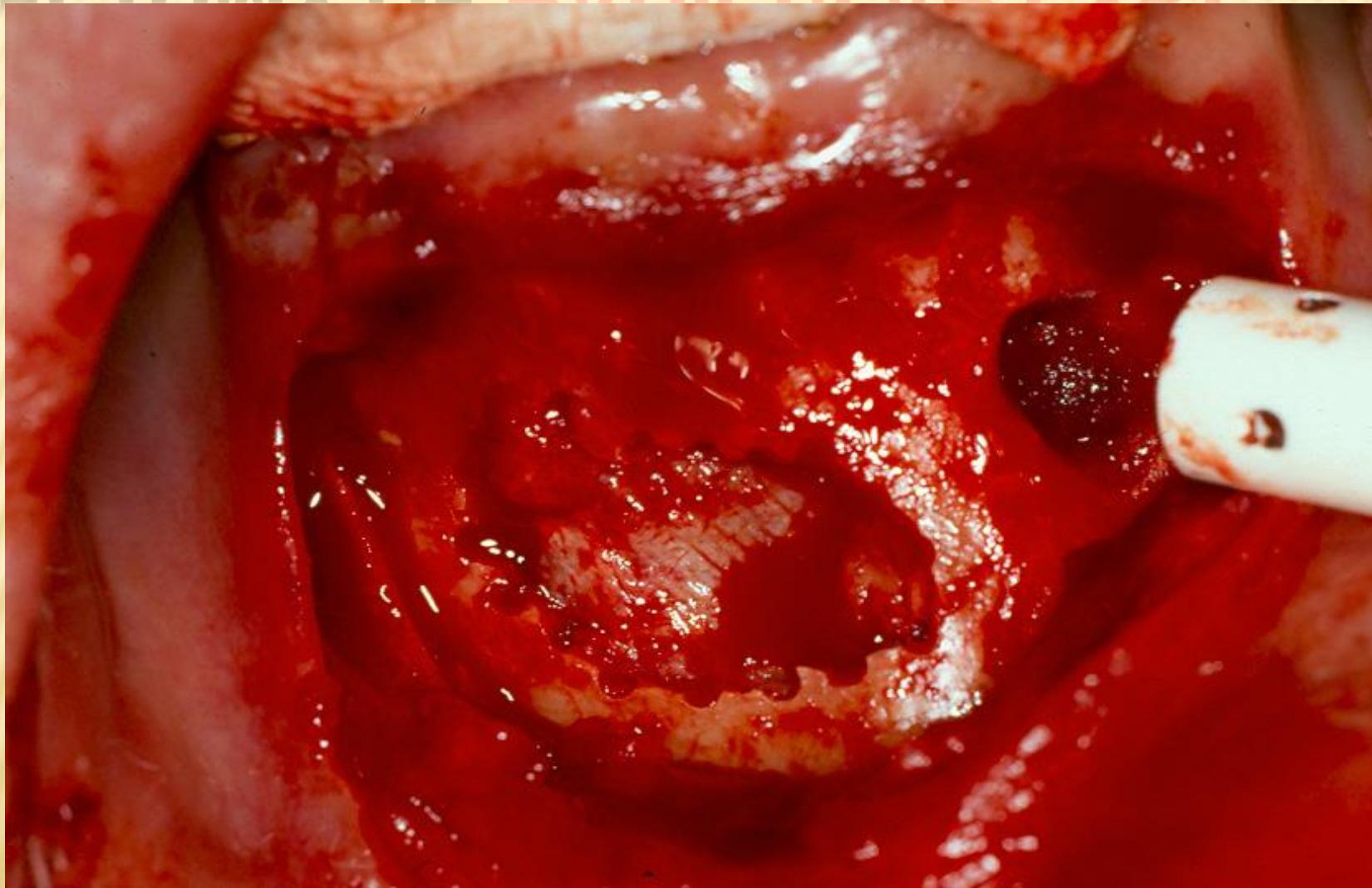
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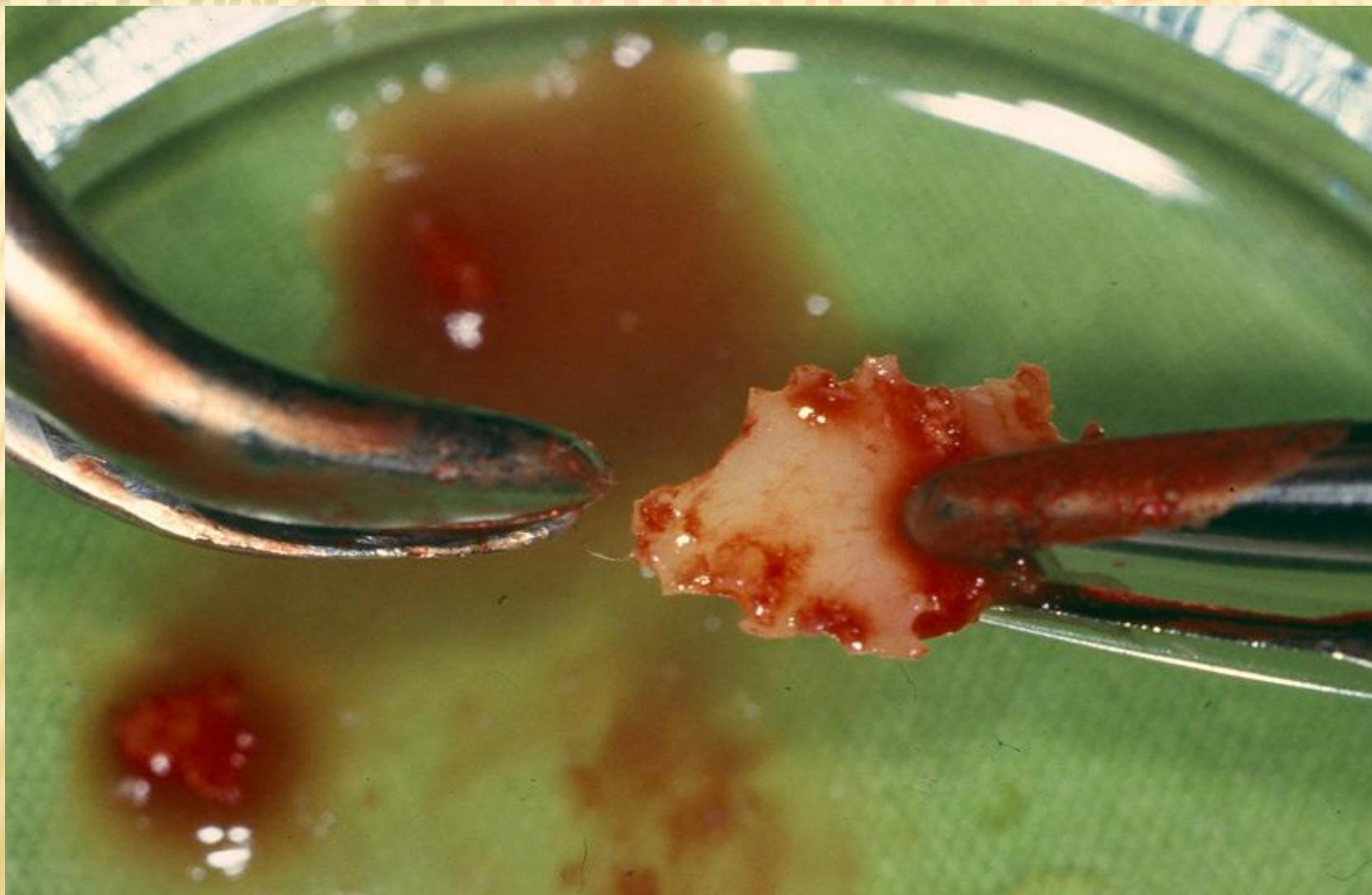
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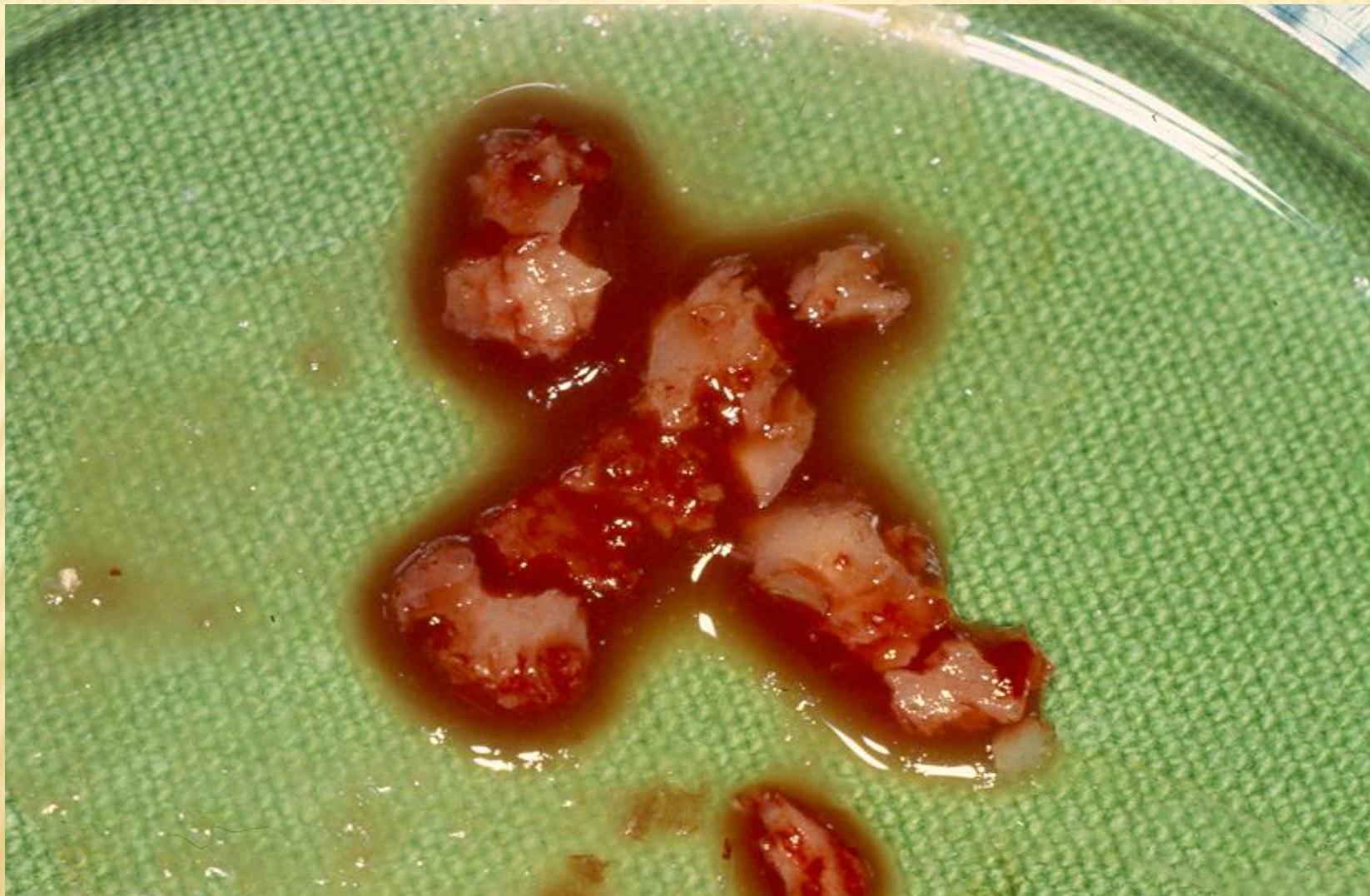
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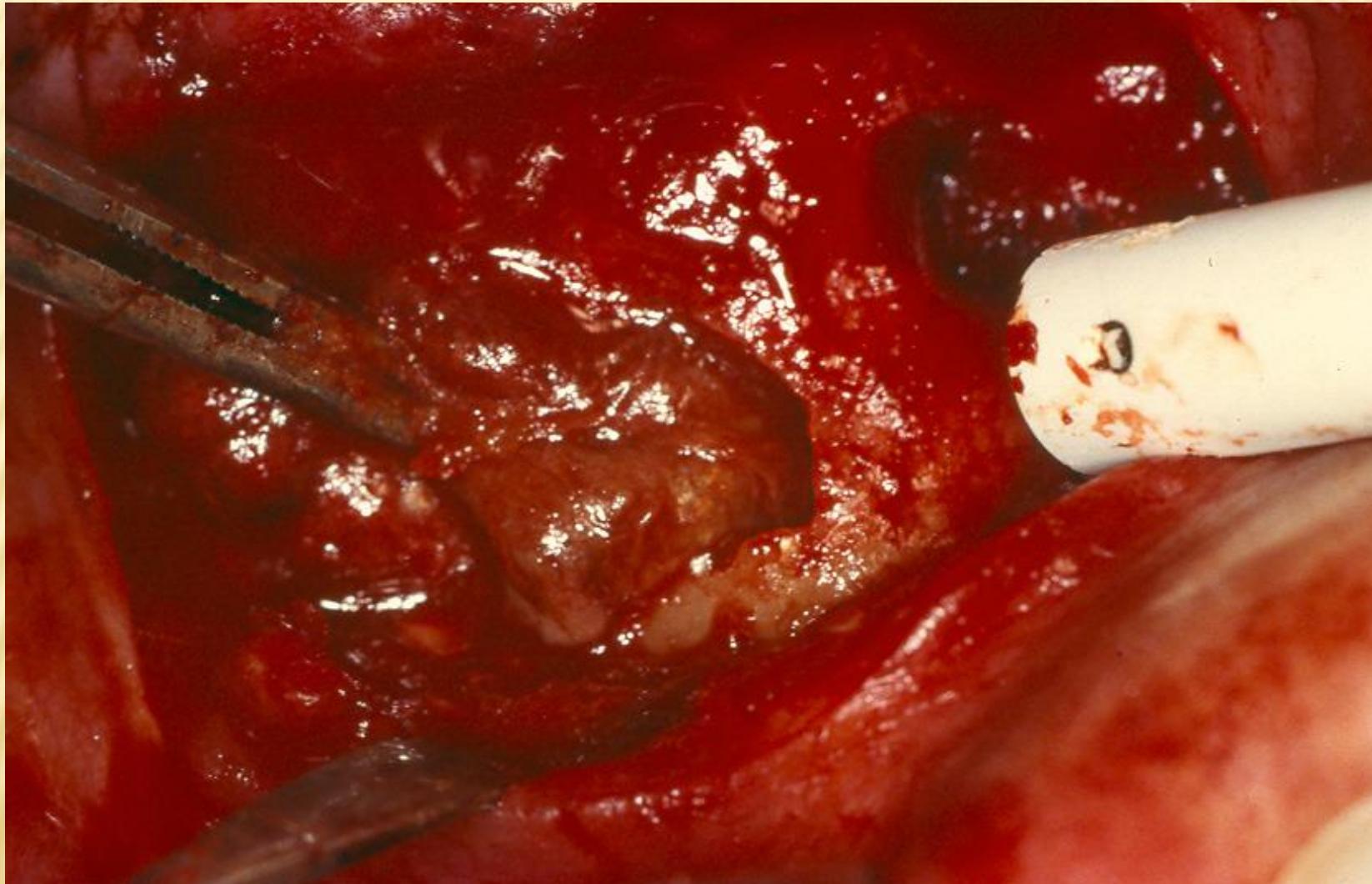
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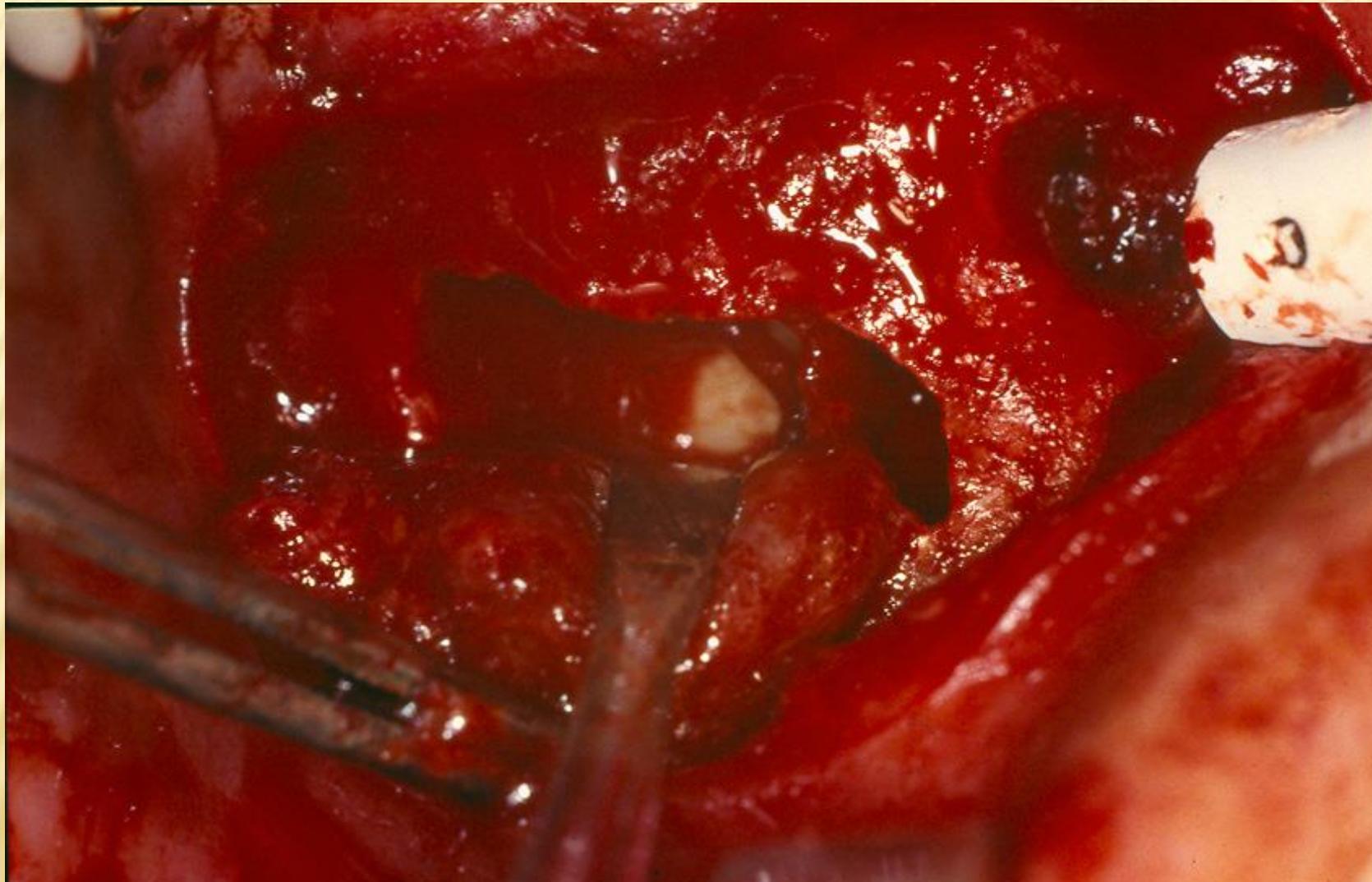
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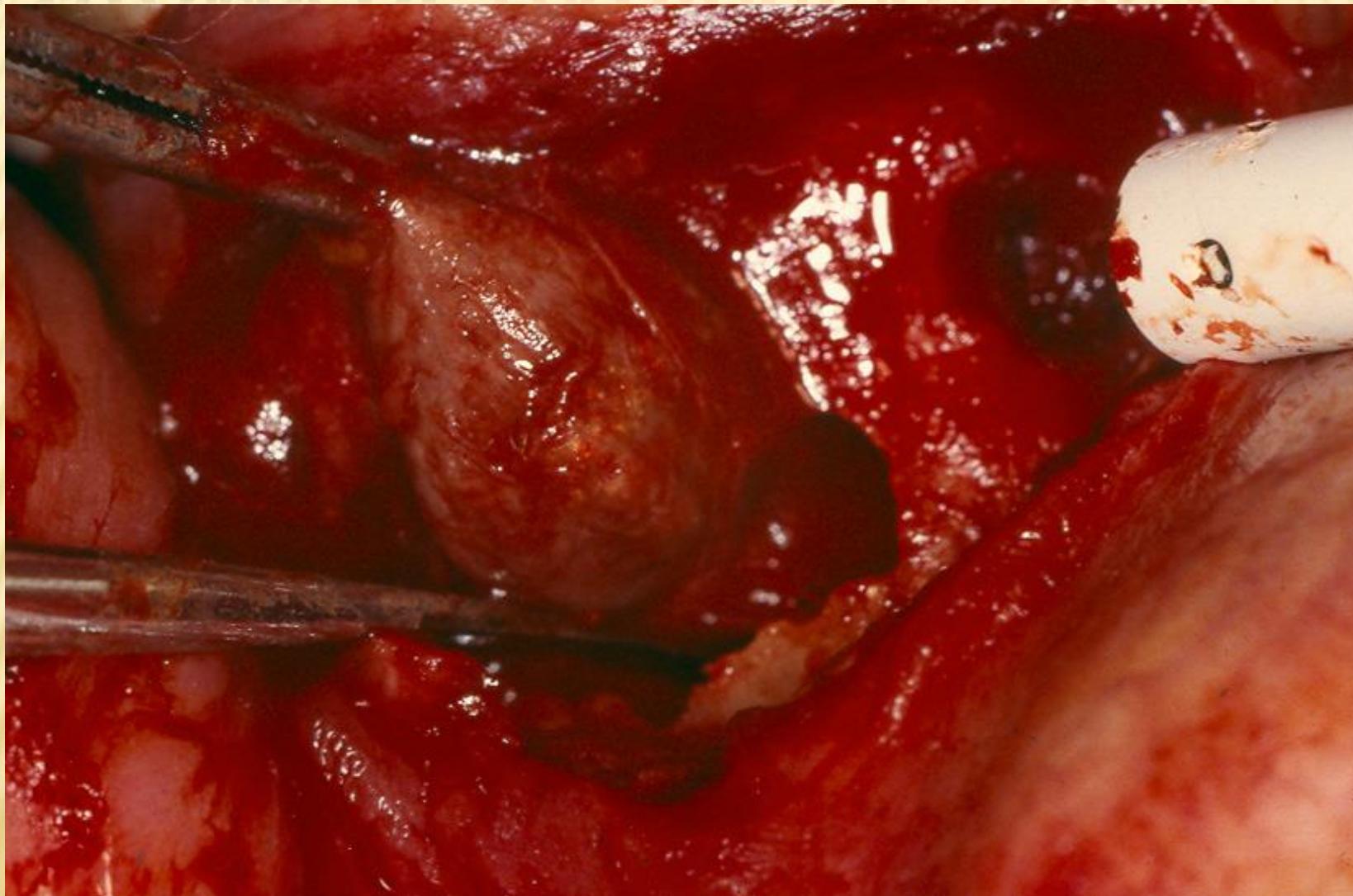
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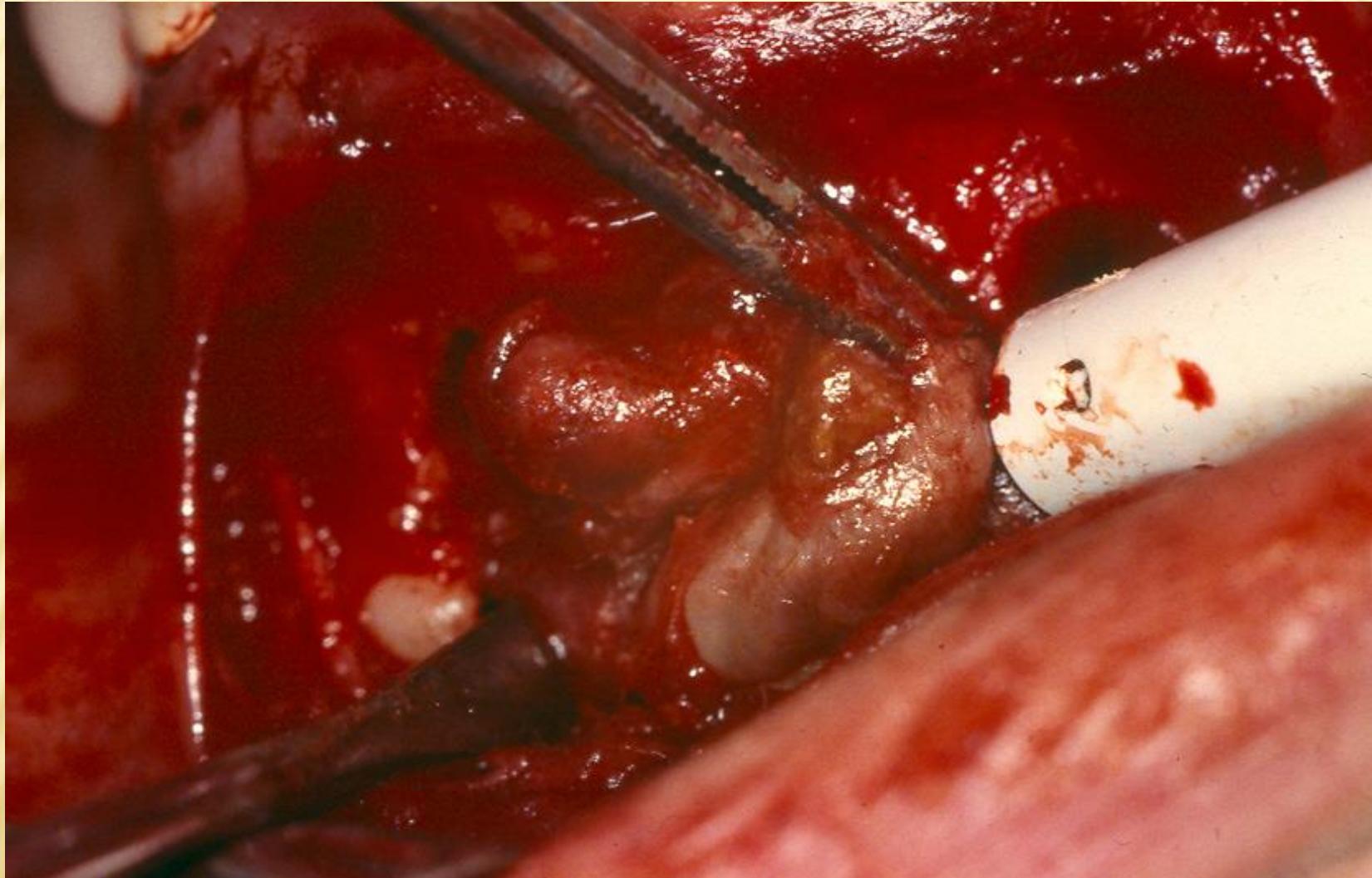
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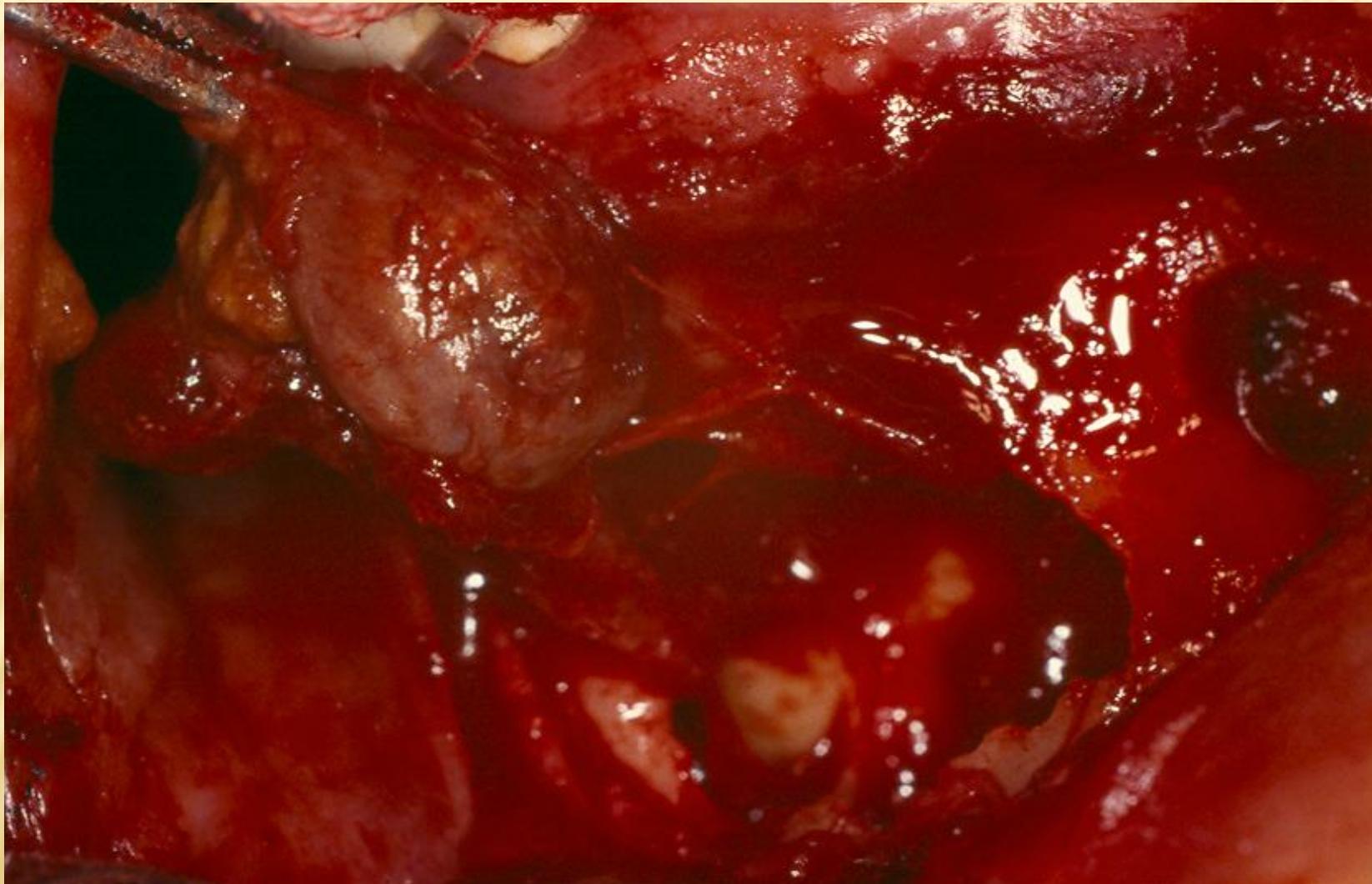
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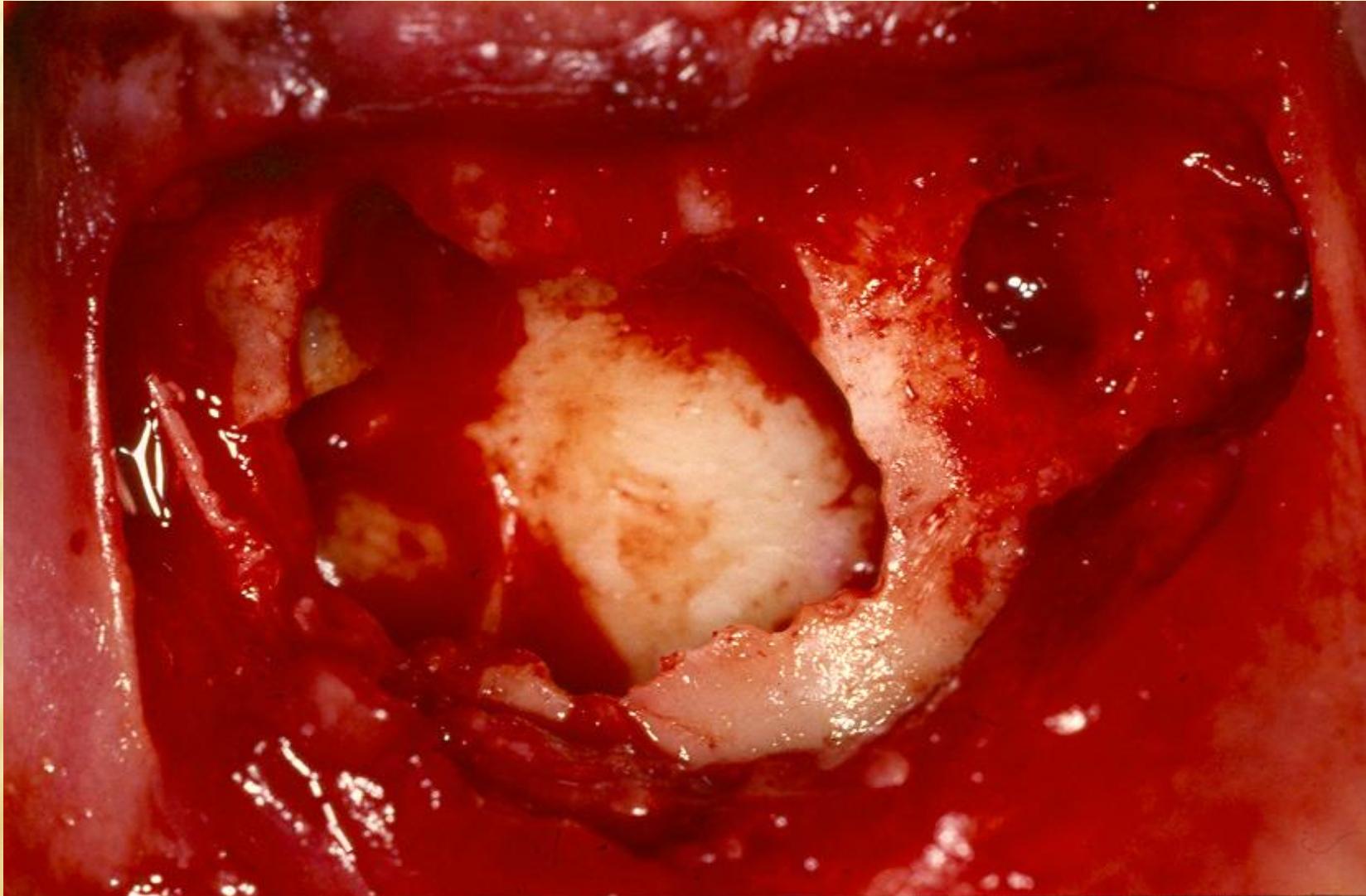
CYSTECTOMY OF RADICULAR CYST



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CYSTECTOMY OF RADICULAR CYST



Bone-graft
materials
stabilizing the blood
coagulum

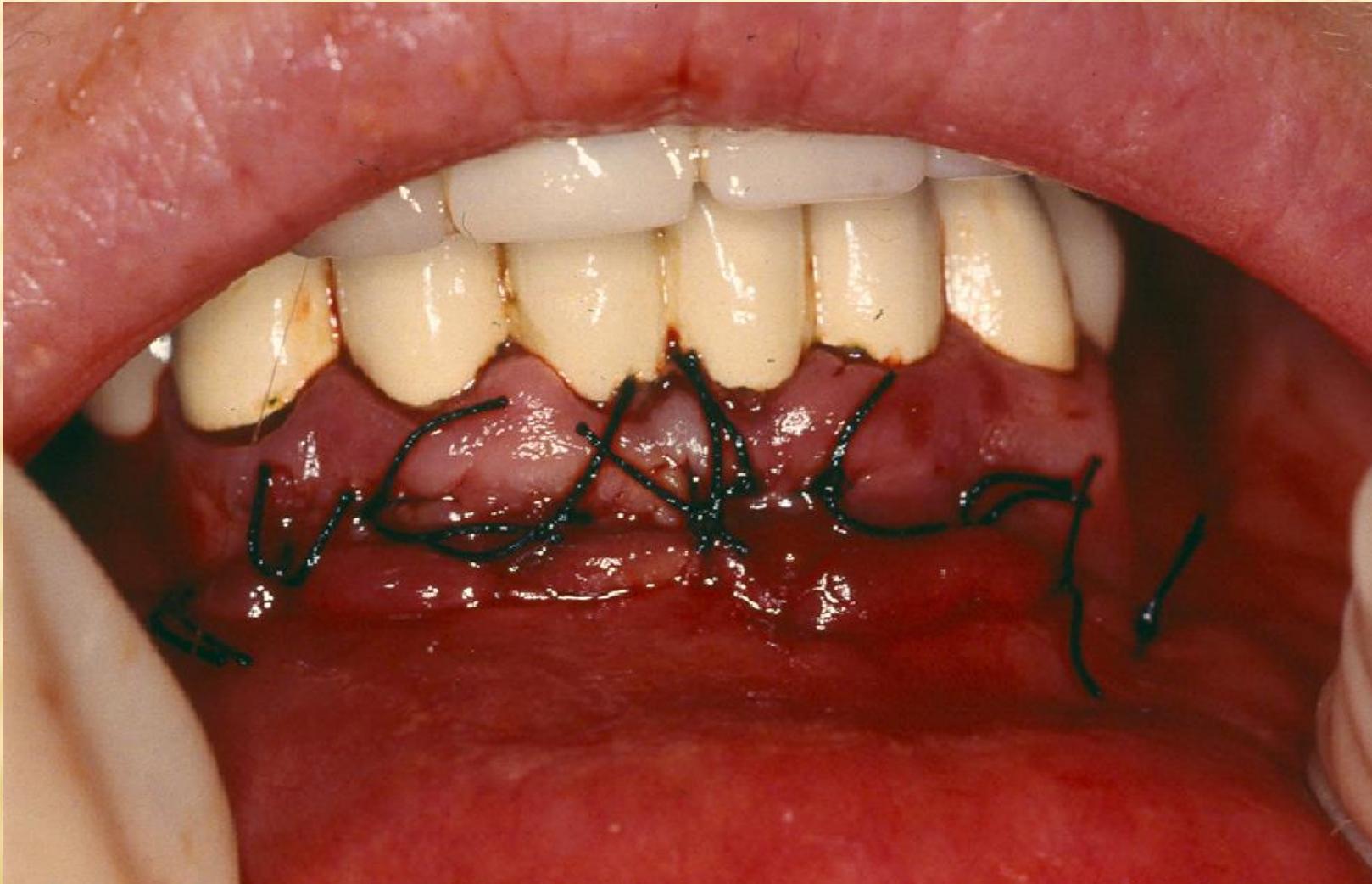
CYSTECTOMY OF RADICULAR CYST



Guided bone
regeneration
by the help of a
membrane

connective tissue	0,5 mm/day
bone tissue	50 µm/day

CYSTECTOMY OF RADICULAR CYST



CYSTOSTOMY (PARTSCH I)

2. Cystostomy (Partsch I)

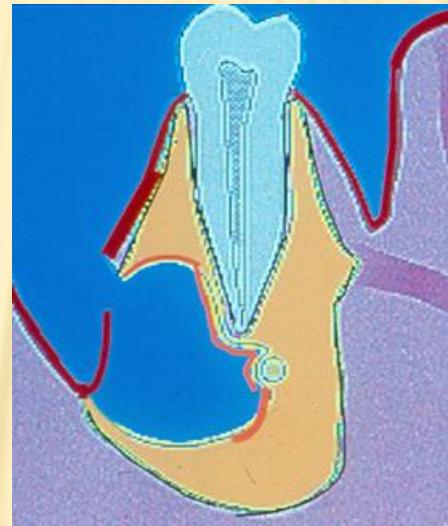
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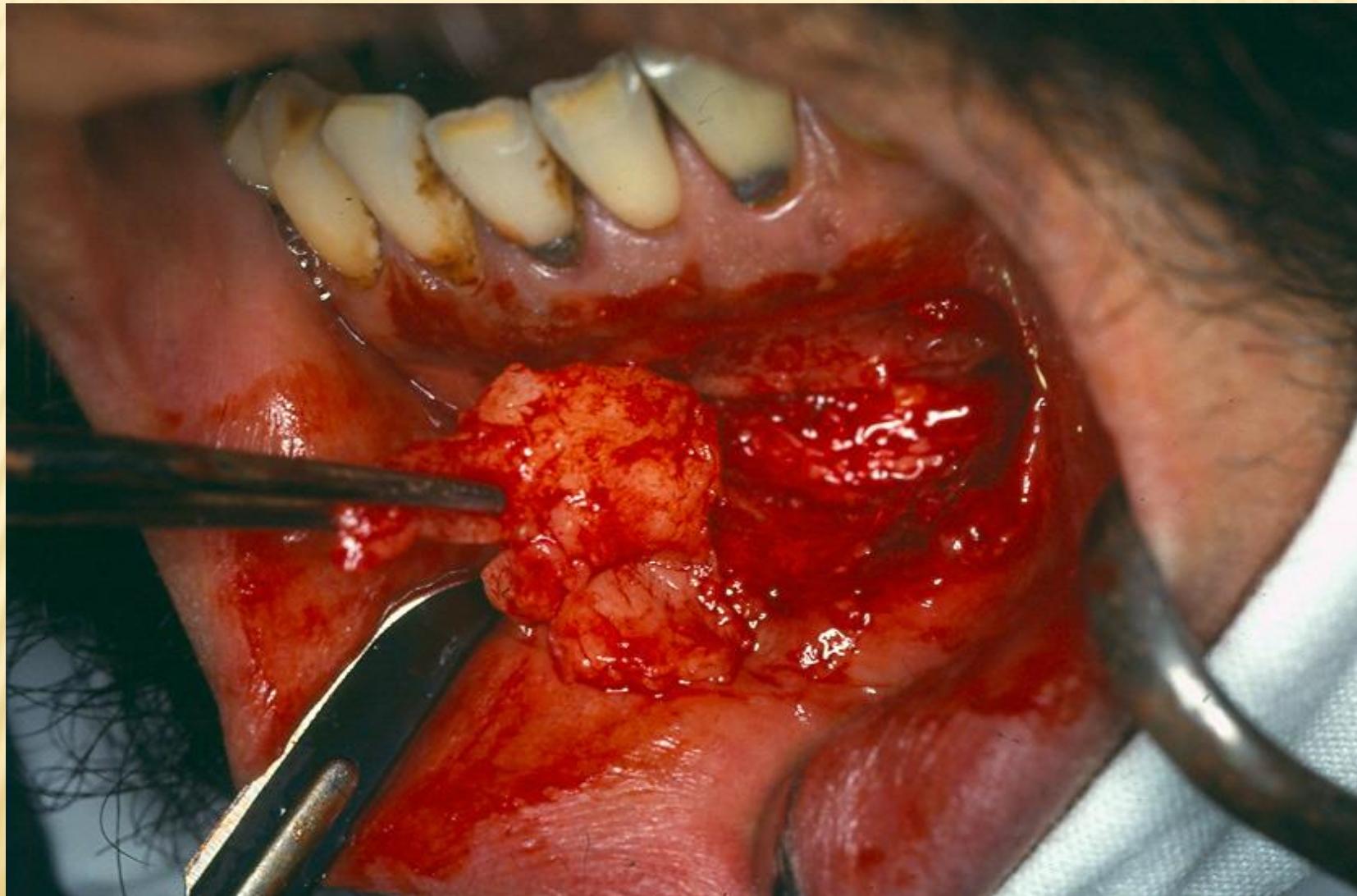
- ✖ Oral:
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WITH PARTIAL ENUCLEATION (MARSUPIALIZATION)



WITH PARTIAL ENUCLEATION (MARSUPIALIZATION)



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FENESTRATION /DECOMPRESSION/

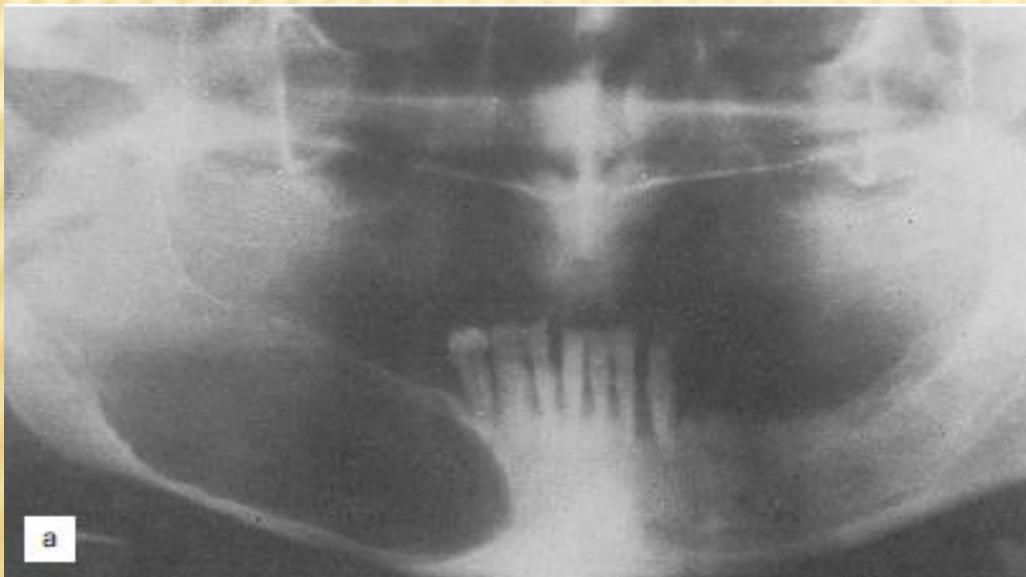
- Large cysts
- The cyst is opened and a small tube is placed into the opening /obturator/
- Modification of cystostomy with the aim of preparation for secondary cystectomy
- The internal pressure of the cyst is eliminated- bone regeneration
- Risk of strangulation of the cyst!

FENESTRATION / DECOMPRESSION /



FENESTRATION /DECOMPRESSION/

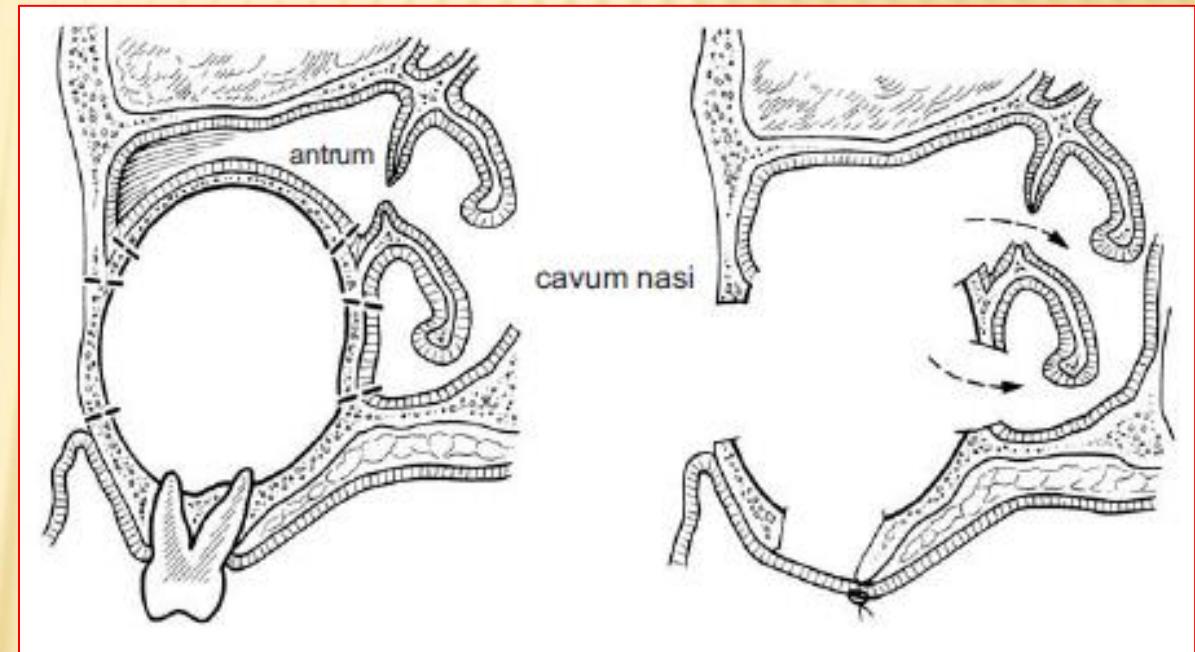
The contraction of the bone cavity is **controlled** on an X-ray picture-
the **obturator** must be made progressively **smaller**



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ANTRO-NASAL

- ✖ large cyst may be converted to the maxillary sinus
- ✖ epithelium of the cyst is completely or partially removed
- ✖ extraction or resection of the teeth
- ✖ interconnected from the oral cavity

