

# ORTOPAN- mogućnosti i ograničenja uz uvođenje nove 3D tehnike

Sanda Kordovan, ing. med. rad.

Goran Glumac, bacc. radiol. tech.

Vlado Rastić, bacc. radiol. tech.

Matko Brkanić, bacc. radiol. tech.

Stela Jelić, bacc. radiol. tech.

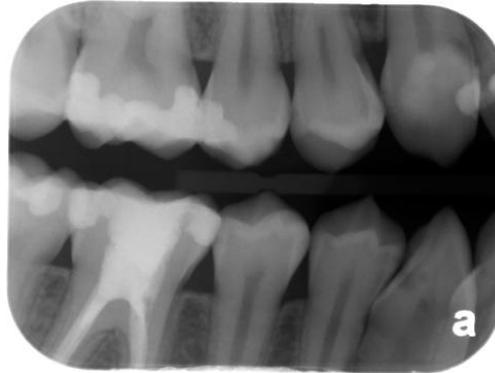
prim. dr. sc. Nikola Gotovac, dr. med.

OPĆA ŽUPANIJSKA BOLNICA POŽEGA

. rujna 2016.

# Podjela snimki zubi i alveolarnih grebena

- intraoralne snimke



- ekstraoralne snimke



# Priprema pacijenta

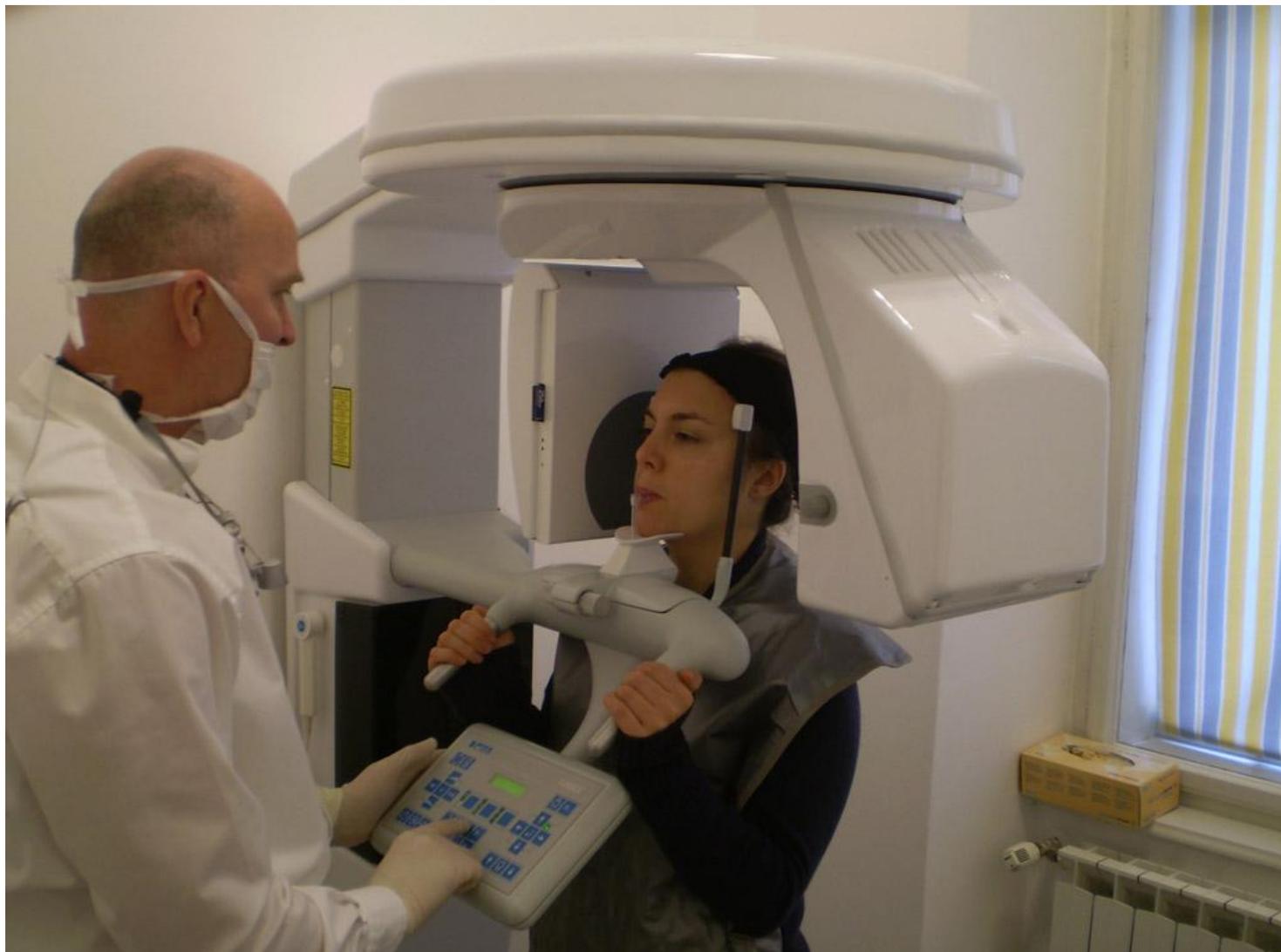
- skidanje svih metalnih predmeta s glave i vrata naušnice, piercing, naočale, kopče i lančice
- skidanje zubne proteze
- upoznavanje pacijenta sa postupkom snimanja

# Zaštita od zračenja

- zbog uskog snopa gonade nisu izložene primarnom snopu zračenja
- zaštita na područje ramena i štitne žlijezde
- optimalna ekspozicija
- dobra priprema pacijenta
- izbjegavanje ponavljanja snimanja

Ekvivalentna doza iznosi 4-10  $\mu\text{Sv}$   
(kranioigram 1.6- 1.7  $\mu\text{Sv}$ )

# Pozicioniranje pacijenta



# Izvođenje snimke

- Ekspozicija
  - odrasli 68 kV i 8 mAs
  - djeca 60 kV i 6 mAs
- Trajanje snimanja
  - - 18 s

# Analiza snimke i primjena



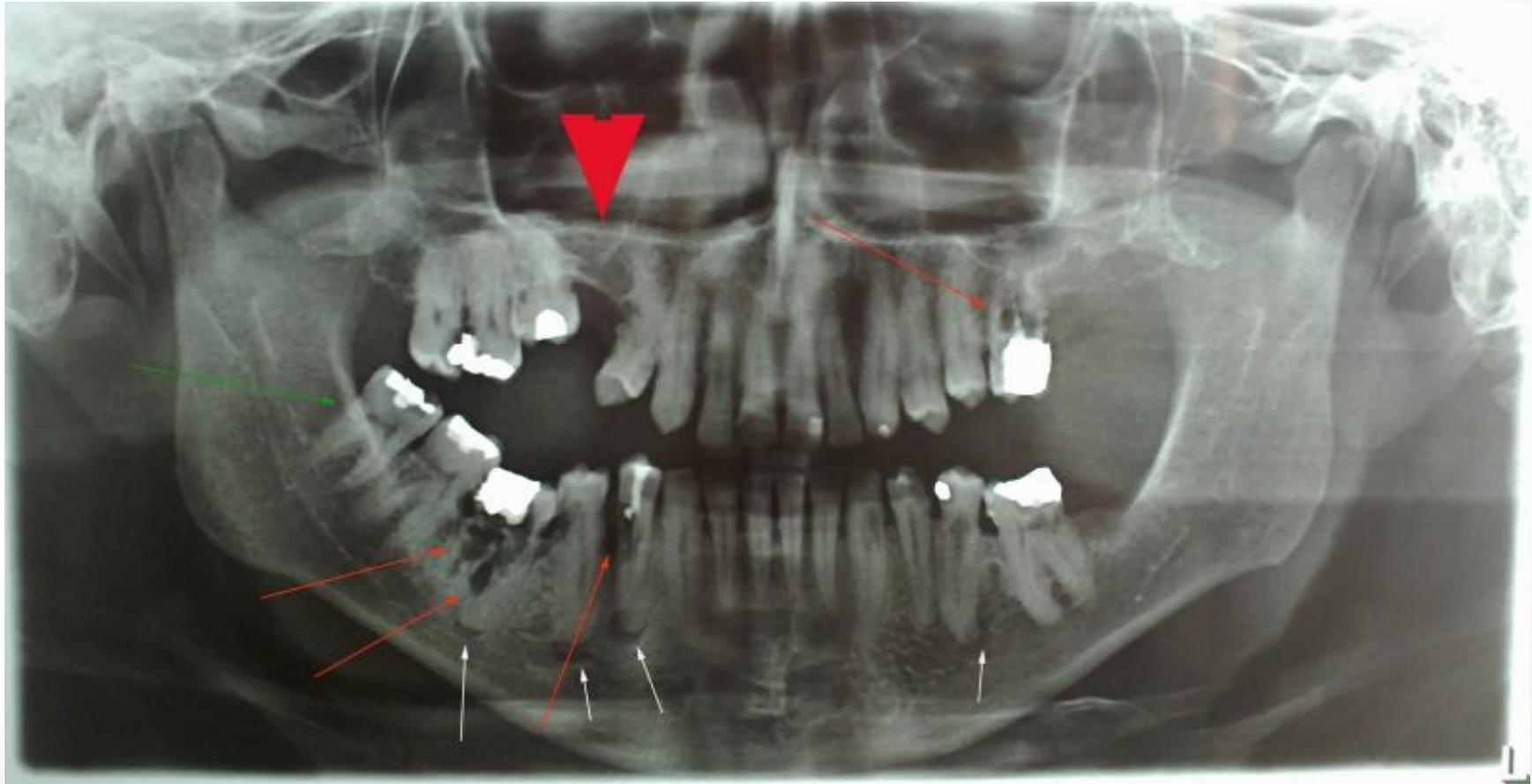
# Analiza snimke i primjena

- periapikalni proces



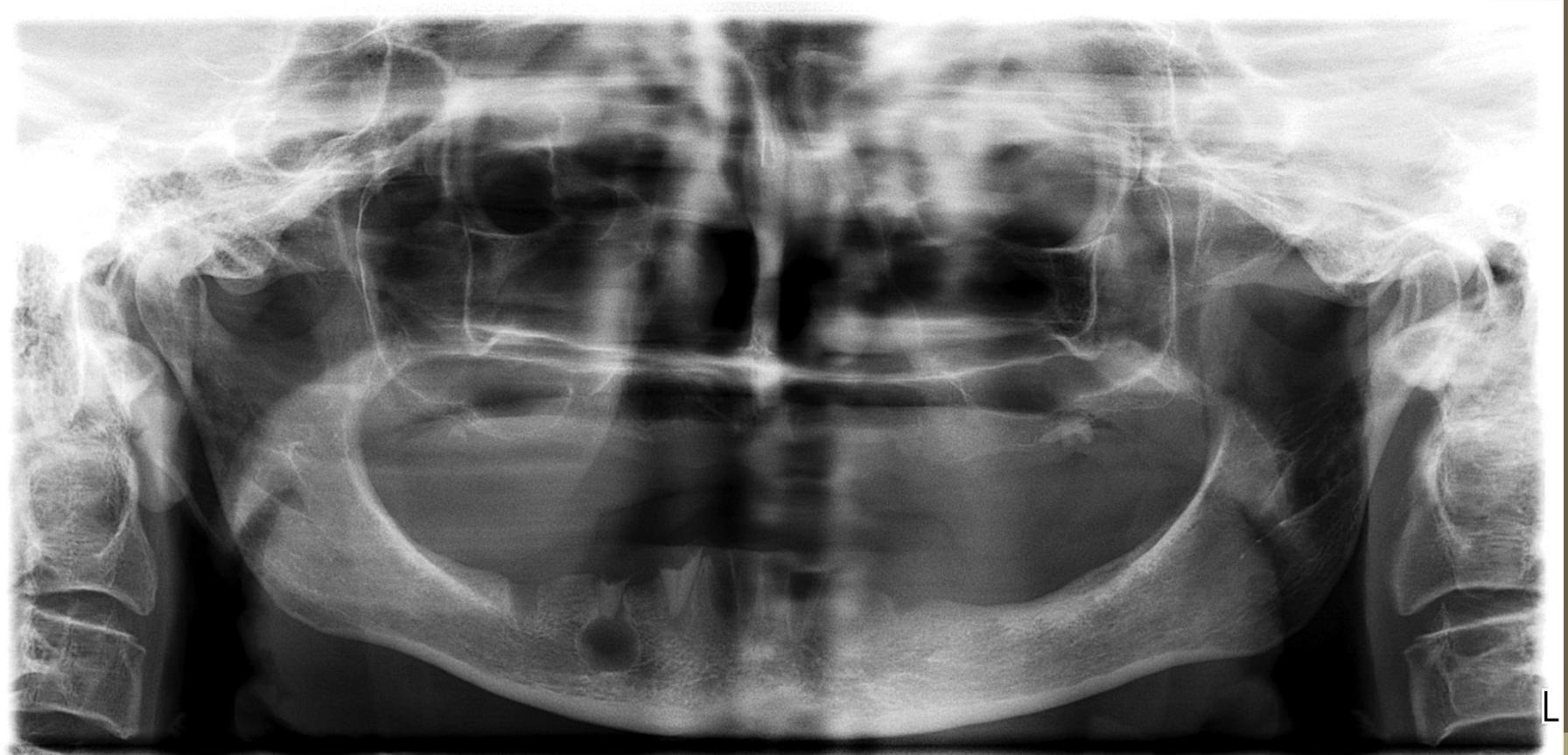
# Analiza snimke i primjena

- duboki karijes



# Analiza snimke i primjena

- ciste



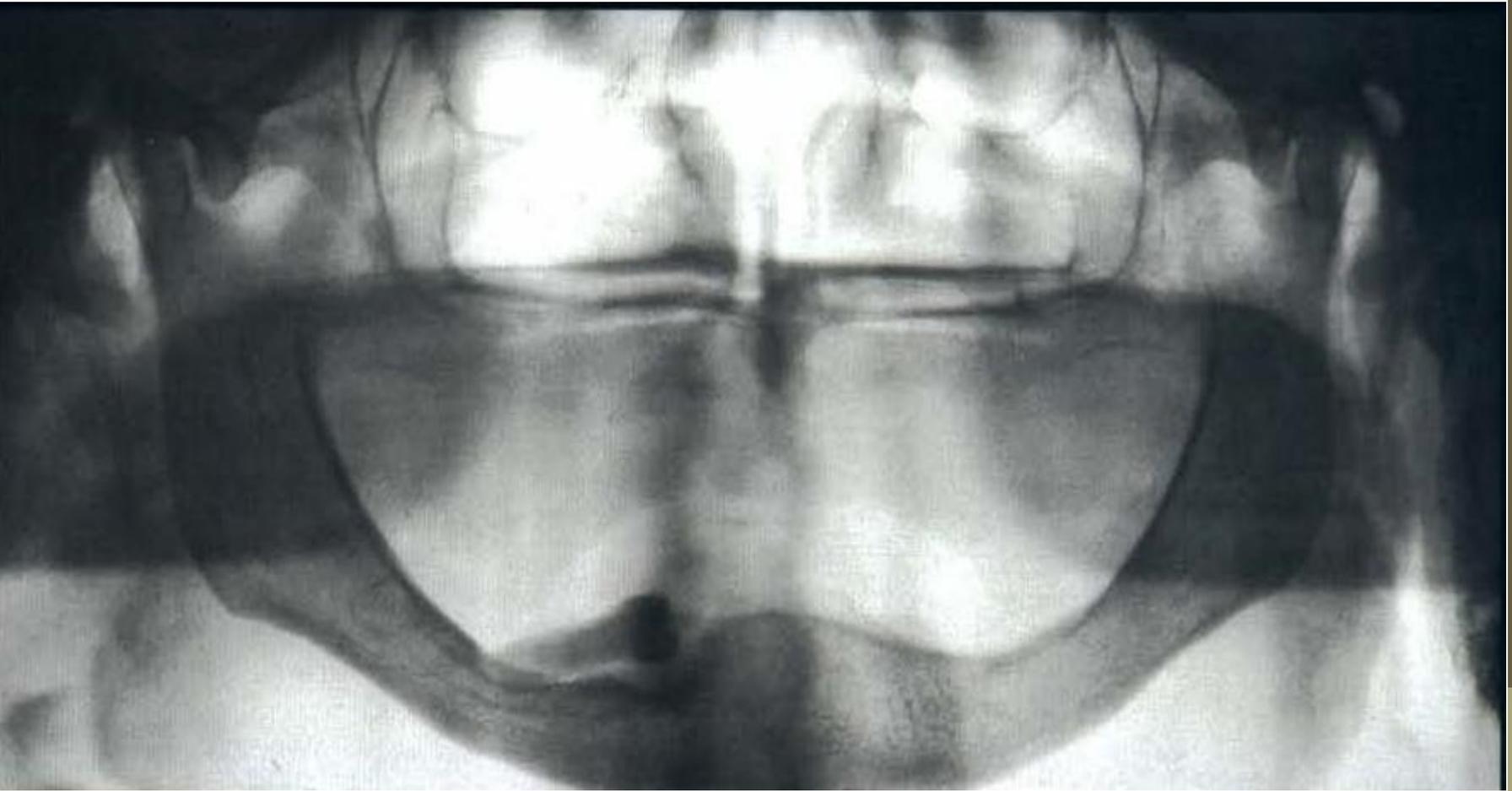
# Analiza snimke i primjena

- koso pozicionirani umnjak



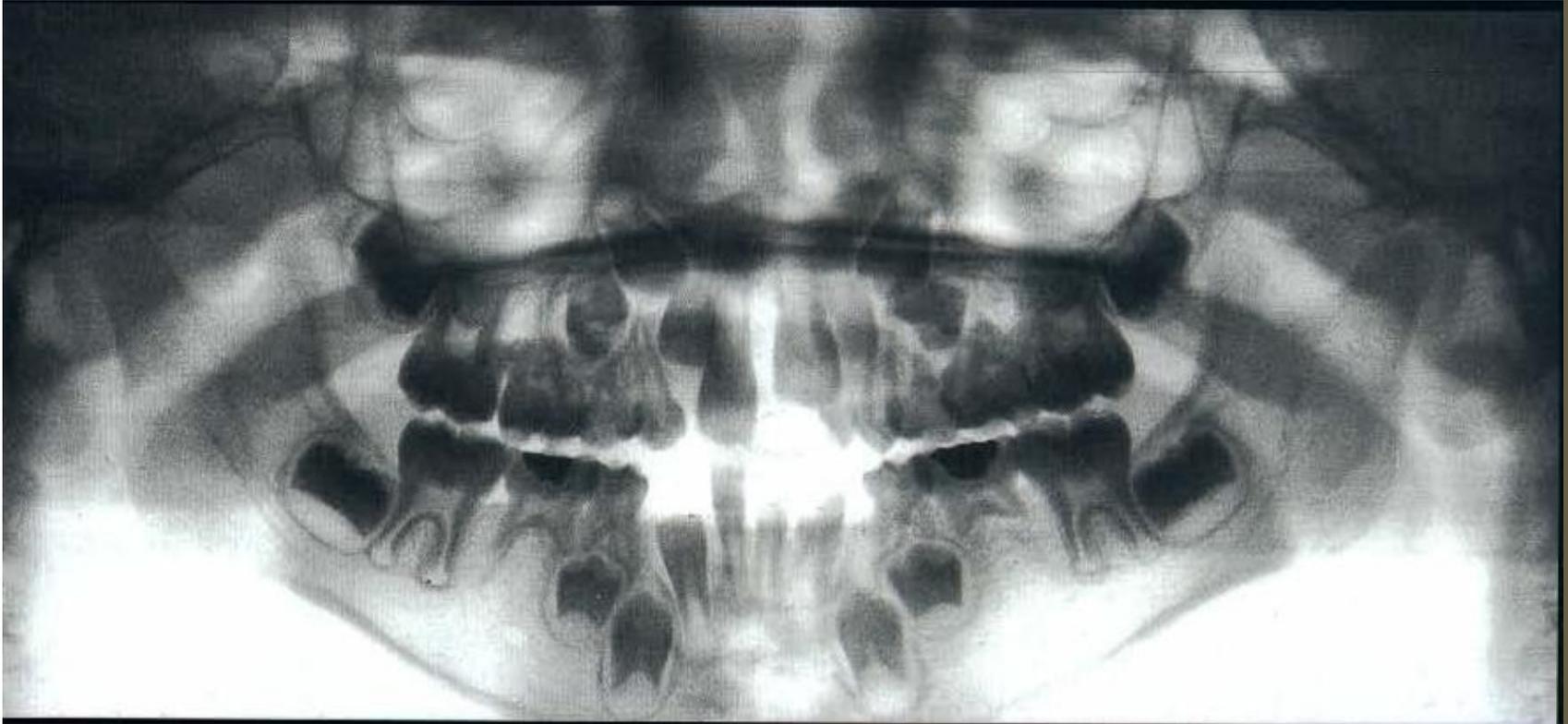
# Analiza snimke i primjena

- retencija zuba



# Analiza snimke i primjena

- nerazvijeni ili prekobrojni zubi



# Analiza snimke i primjena

- megadonciju ili mikrodonciju



# Analiza snimke i primjena

- fraktura mandibule



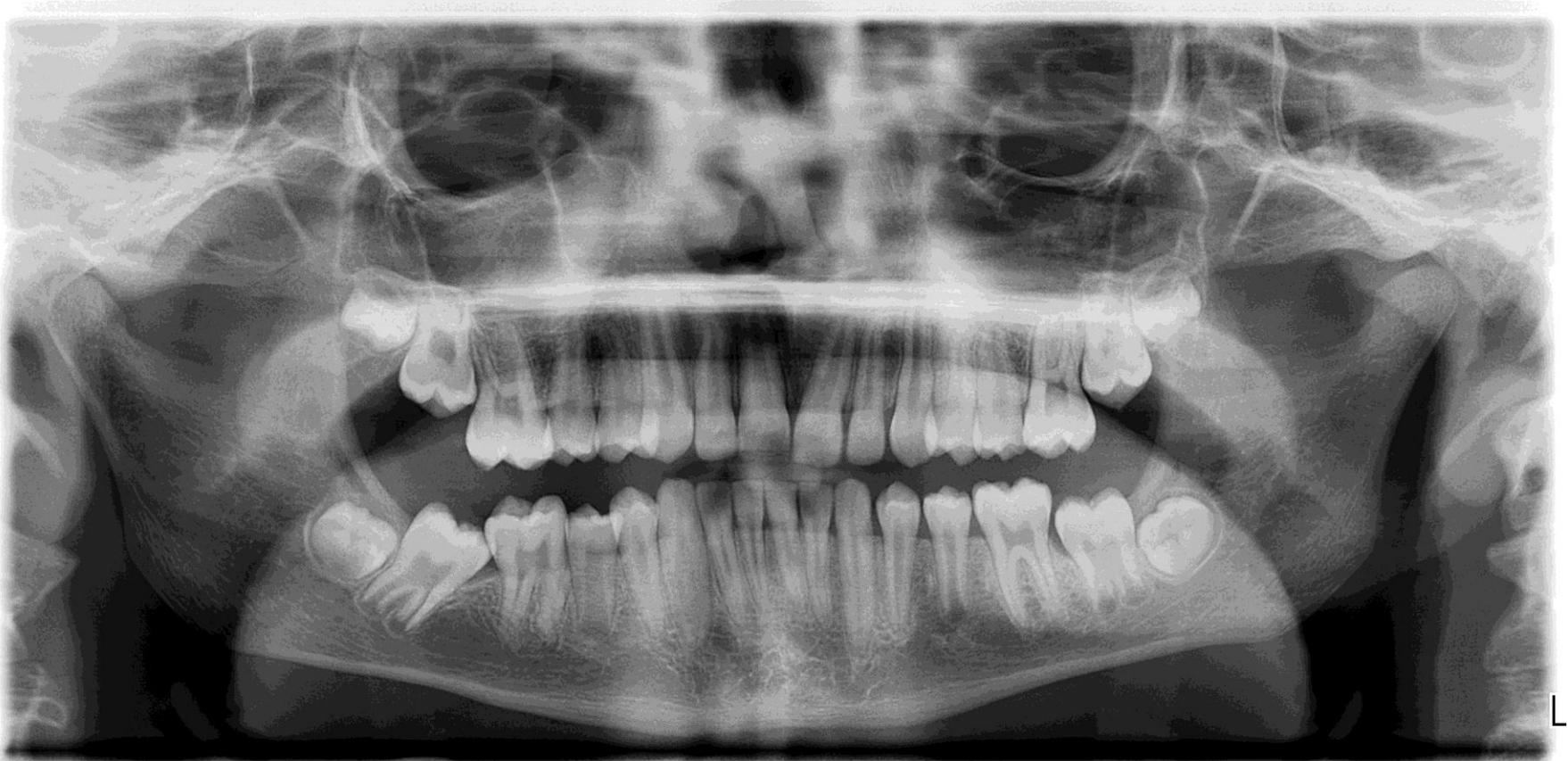
# Greške

- preveliki nagib glave prema naprijed



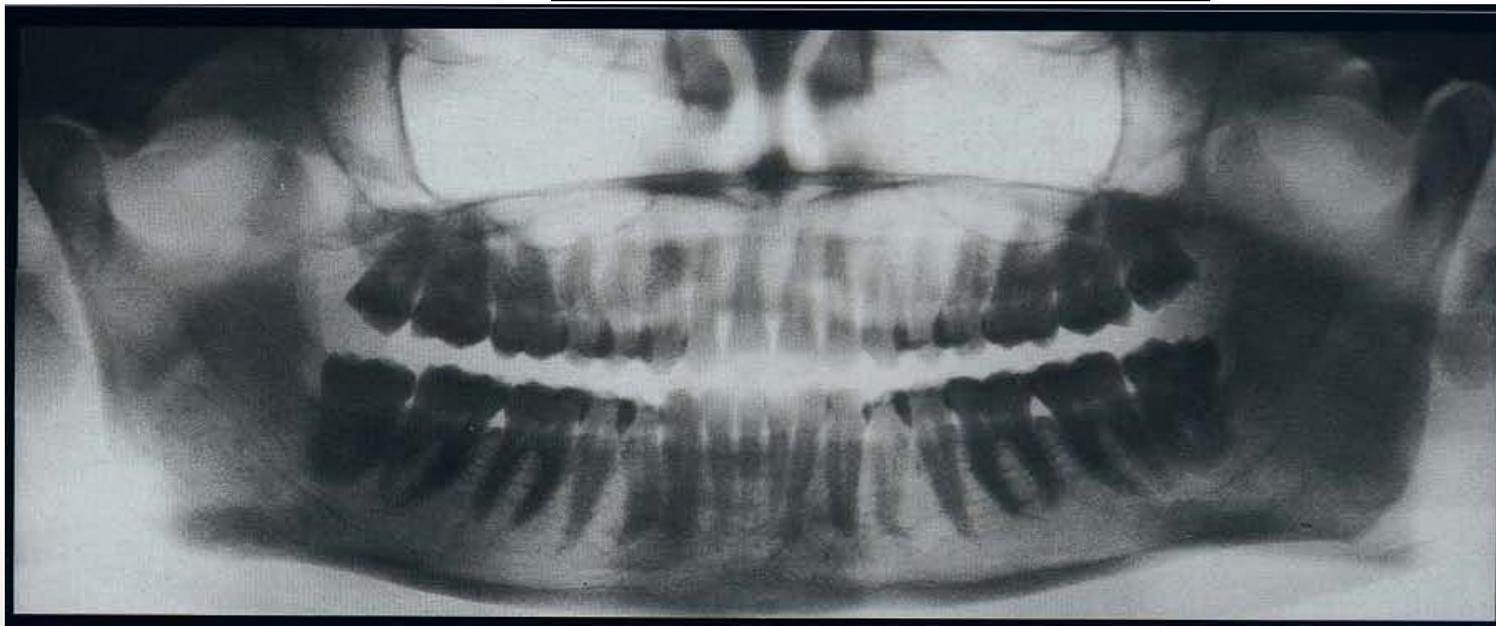
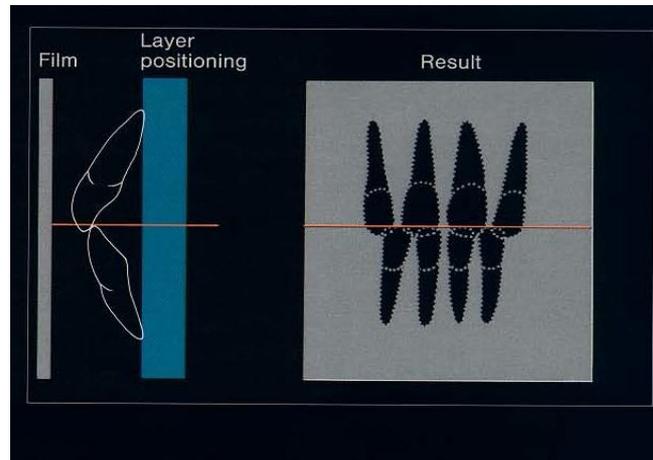
# Greške

- preveliki nagib glave prema nazad



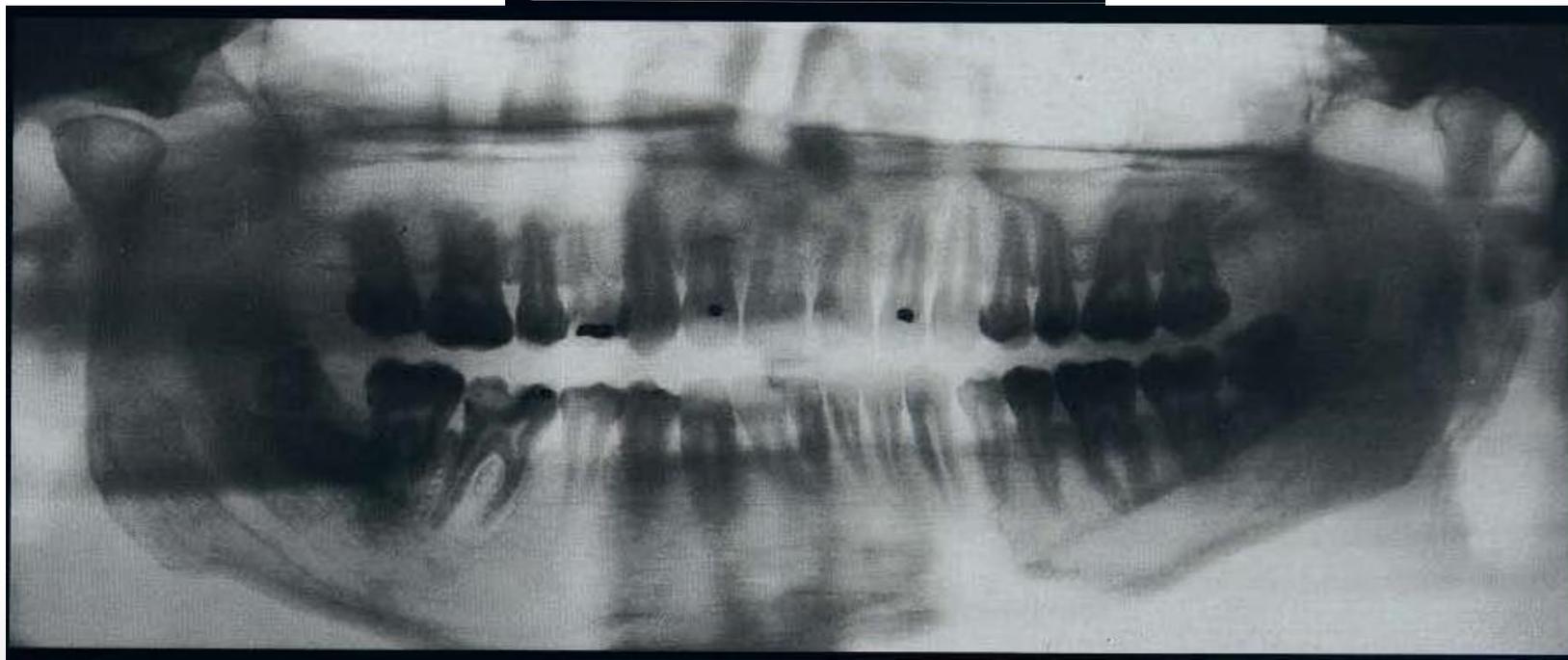
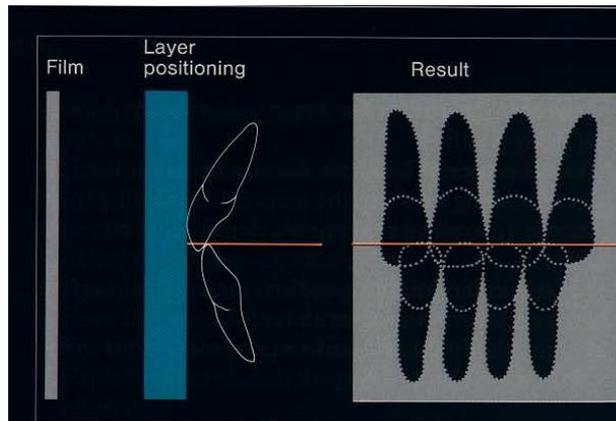
# Greške

- prednji zubi postavljeni su ispred linije tomografiranja



# Greške

- prednji zubi postavljeni su iza linije tomografiranja



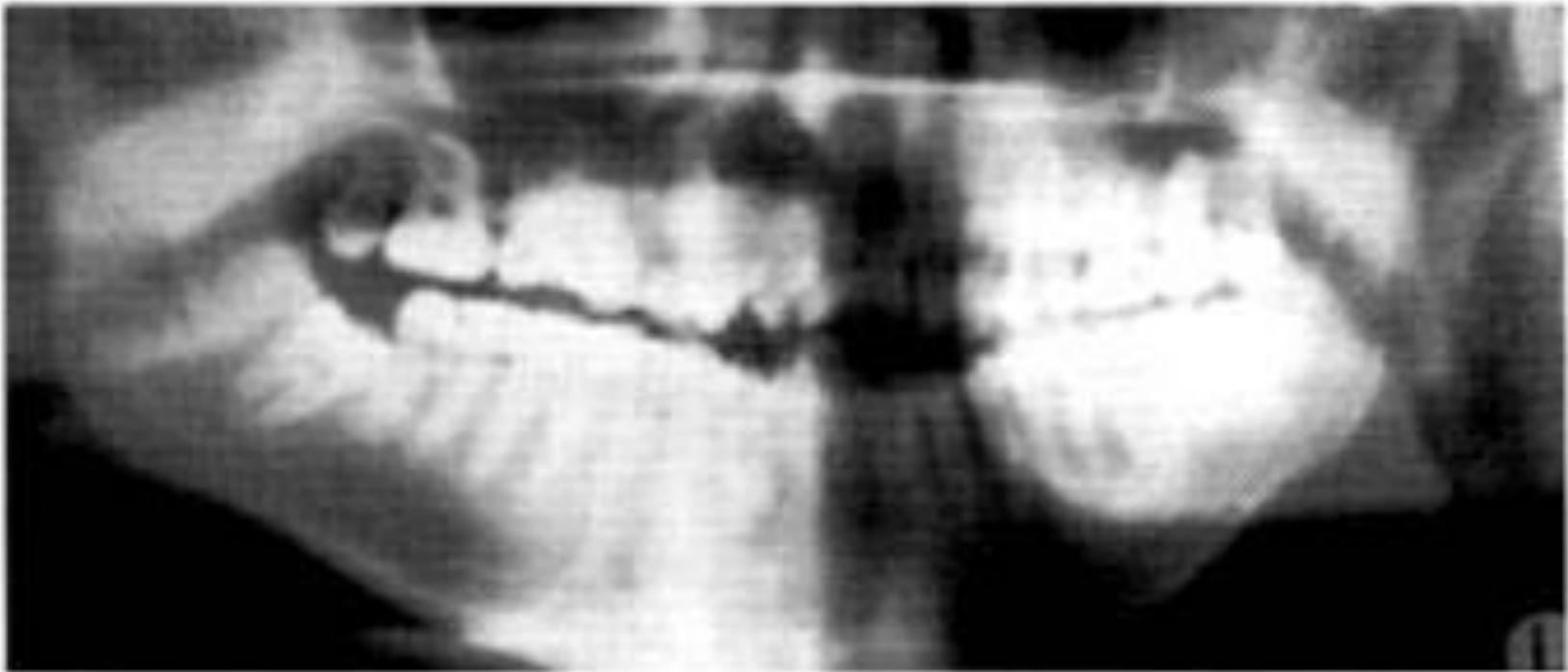
# Greške

- jezik nije pritisnut na nepce

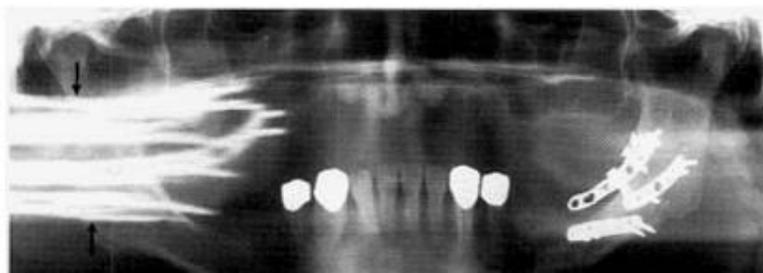
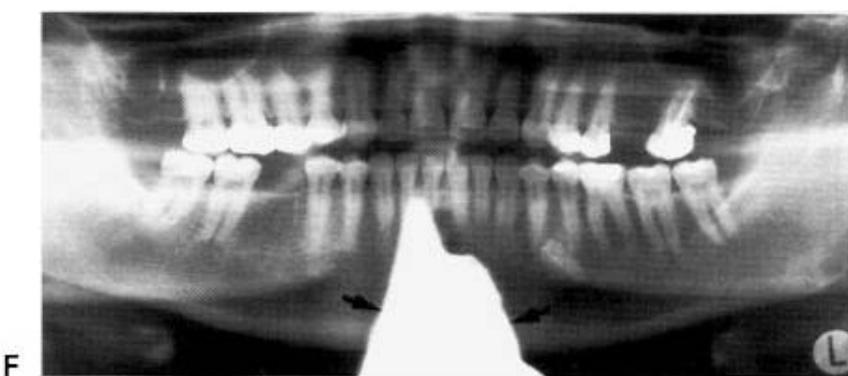
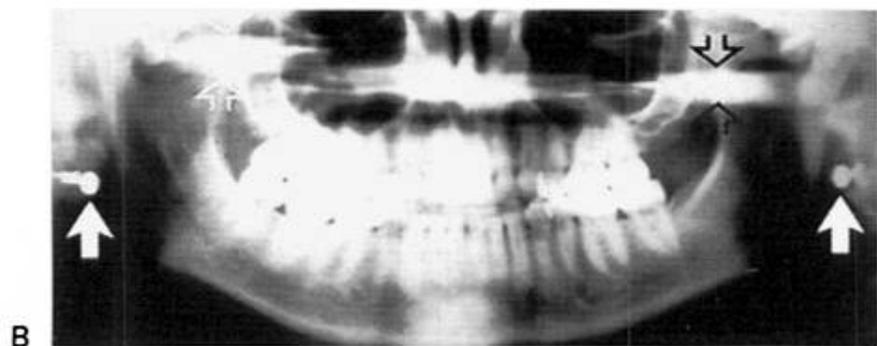
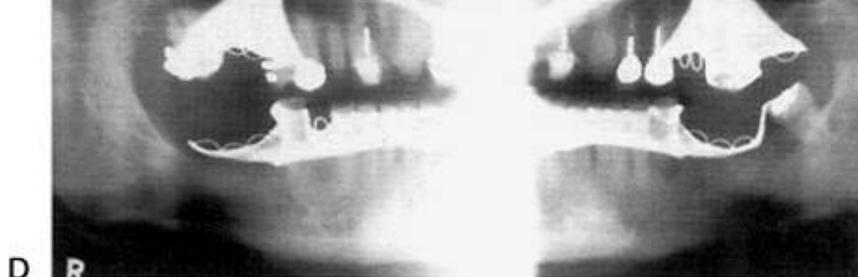
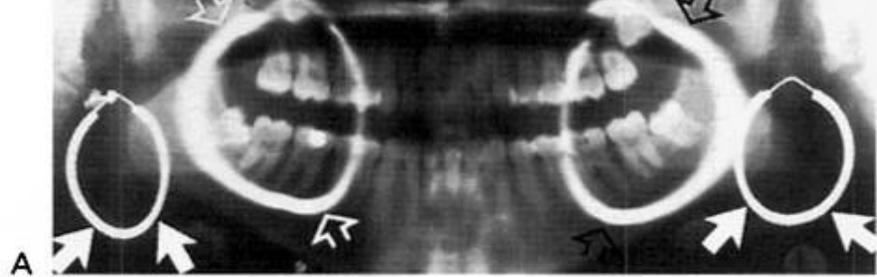


# Greške

- nesimetričan položaj glave s obzirom na sagitalnu liniju



D



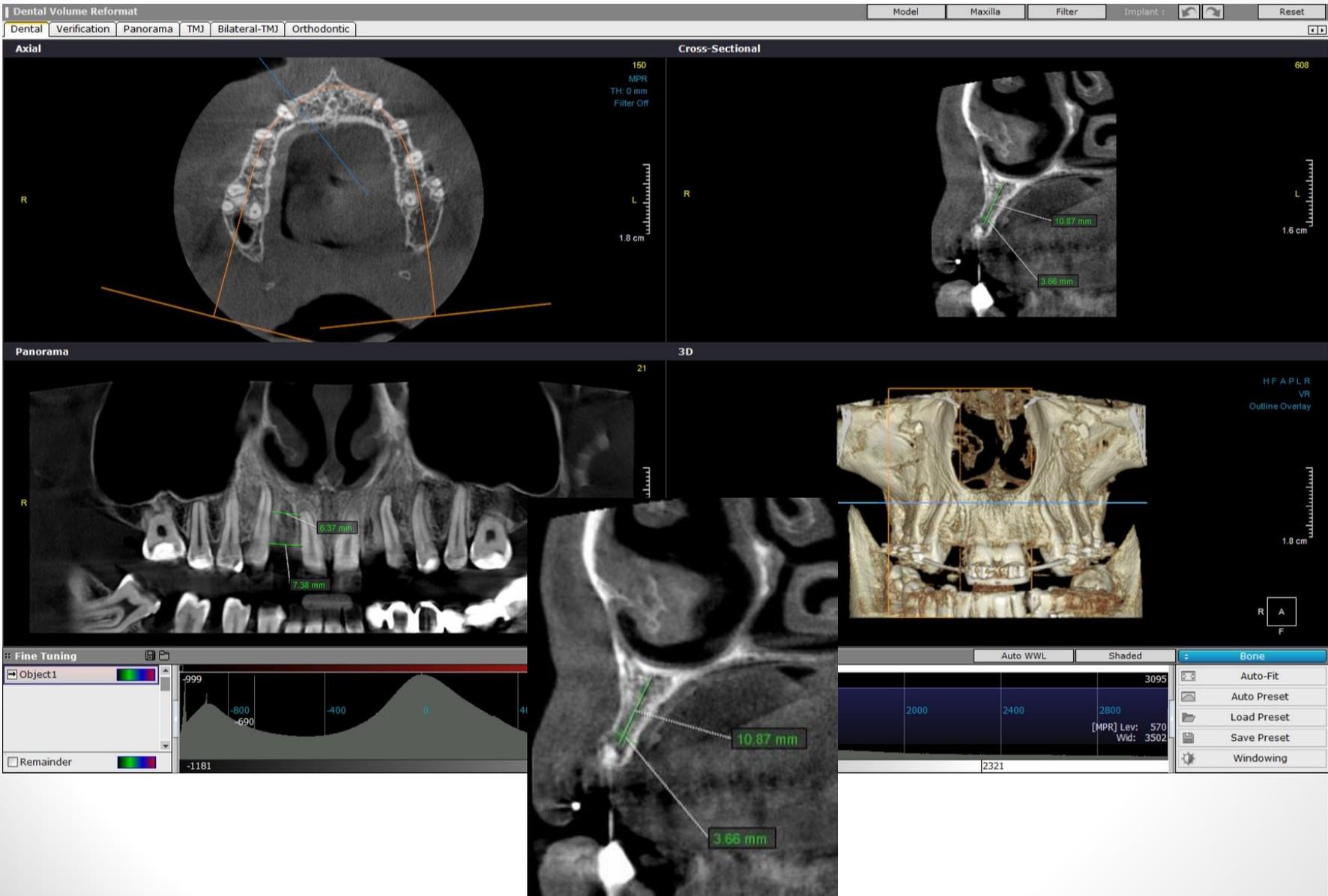
# Ograničenja

- D prikaz
- preklapanje korijena zuba i nepravilan položaj zuba
- fiksni metalni predmeti
- sjena vratne kralješnice
- dob pacijenta
- anatomske anomalije
- mentalna retardacija

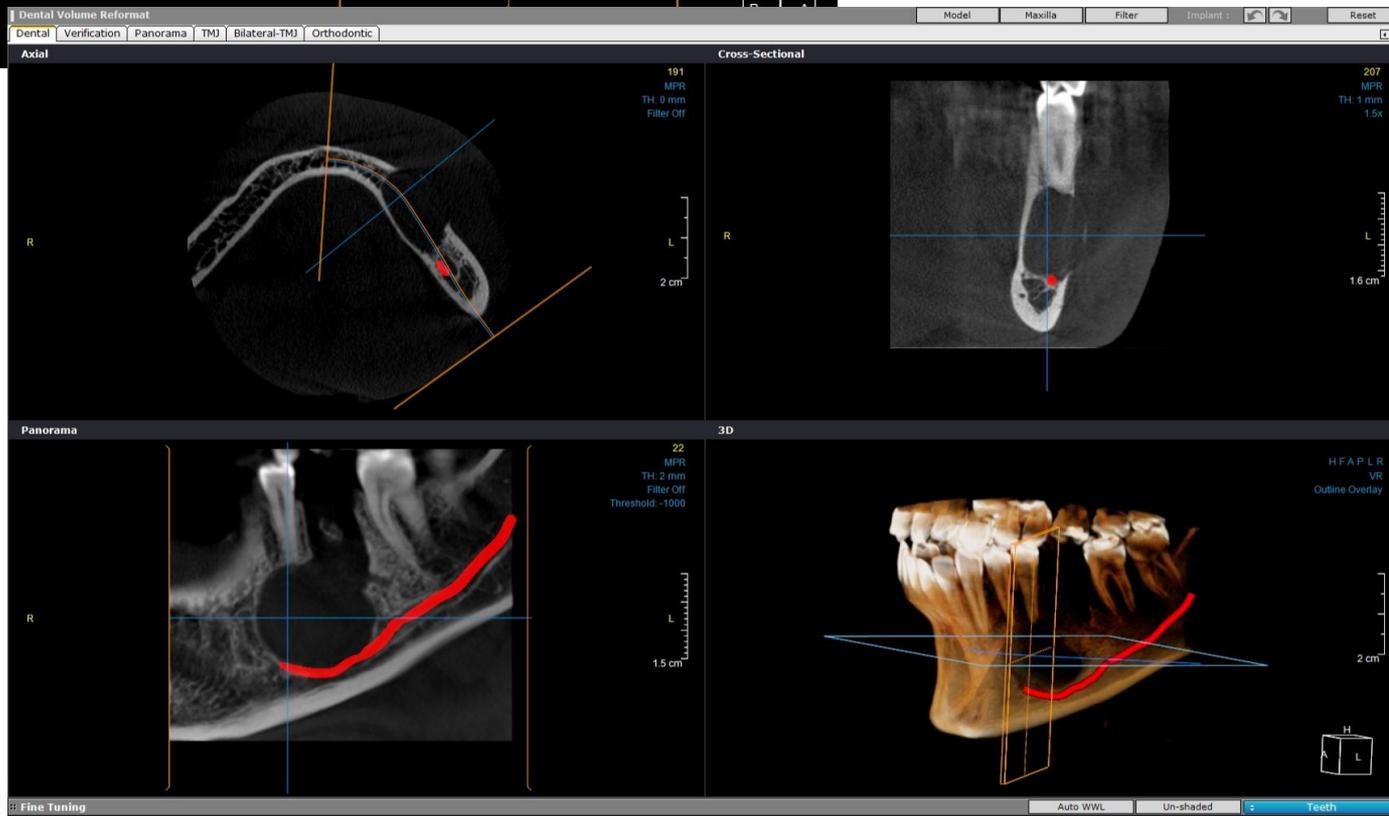
# D snimke

- CBCT- visoka rezolucija i manja doza zračenja te milimetarski točna analiza

- planiranje implantata što podrazumjeva provjeravanje gustoće i građe kostiju



- praćenje živca



# • ortodoncija

Dental Volume Reformat

Model Maxilla Filter Implant : Reset

Dental Verification Panorama TMJ Bilateral-TMJ Orthodontic

### Axial

345  
MPR  
TH: 0 mm  
Filter Off

R L  
7 mm

### Cross-Sectional

286  
MPR  
TH: 1 mm  
Filter Off

R L  
9 mm

### Panorama

21  
MPR  
TH: 2 mm  
Filter Off  
Threshold: -1000

R L  
8 mm

### 3D

1.3 cm

H  
R A

### Fine Tuning

Object1

Remainder

-999 -800 -400 0 400

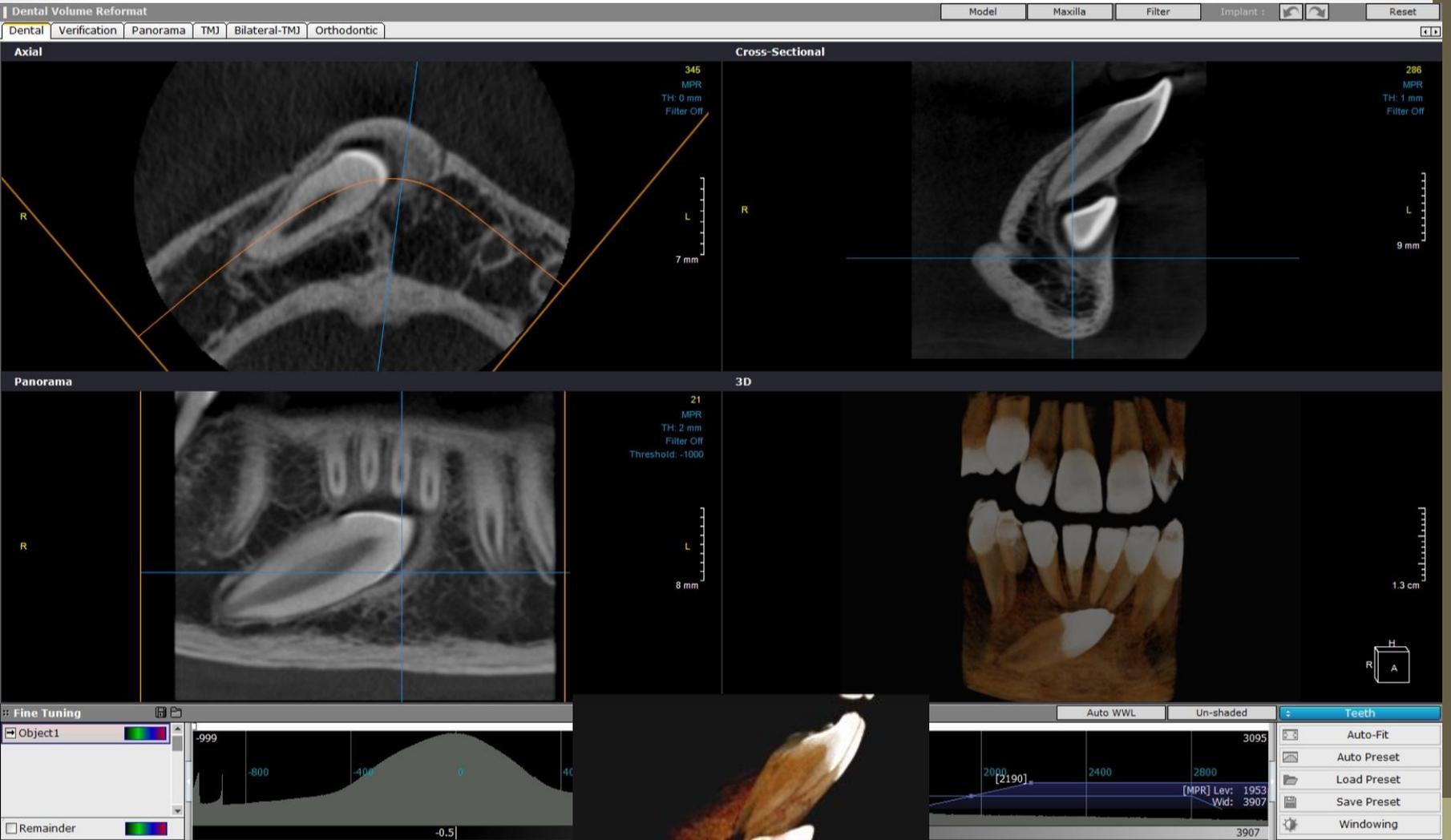
-0.5

Auto WWL Un-shaded

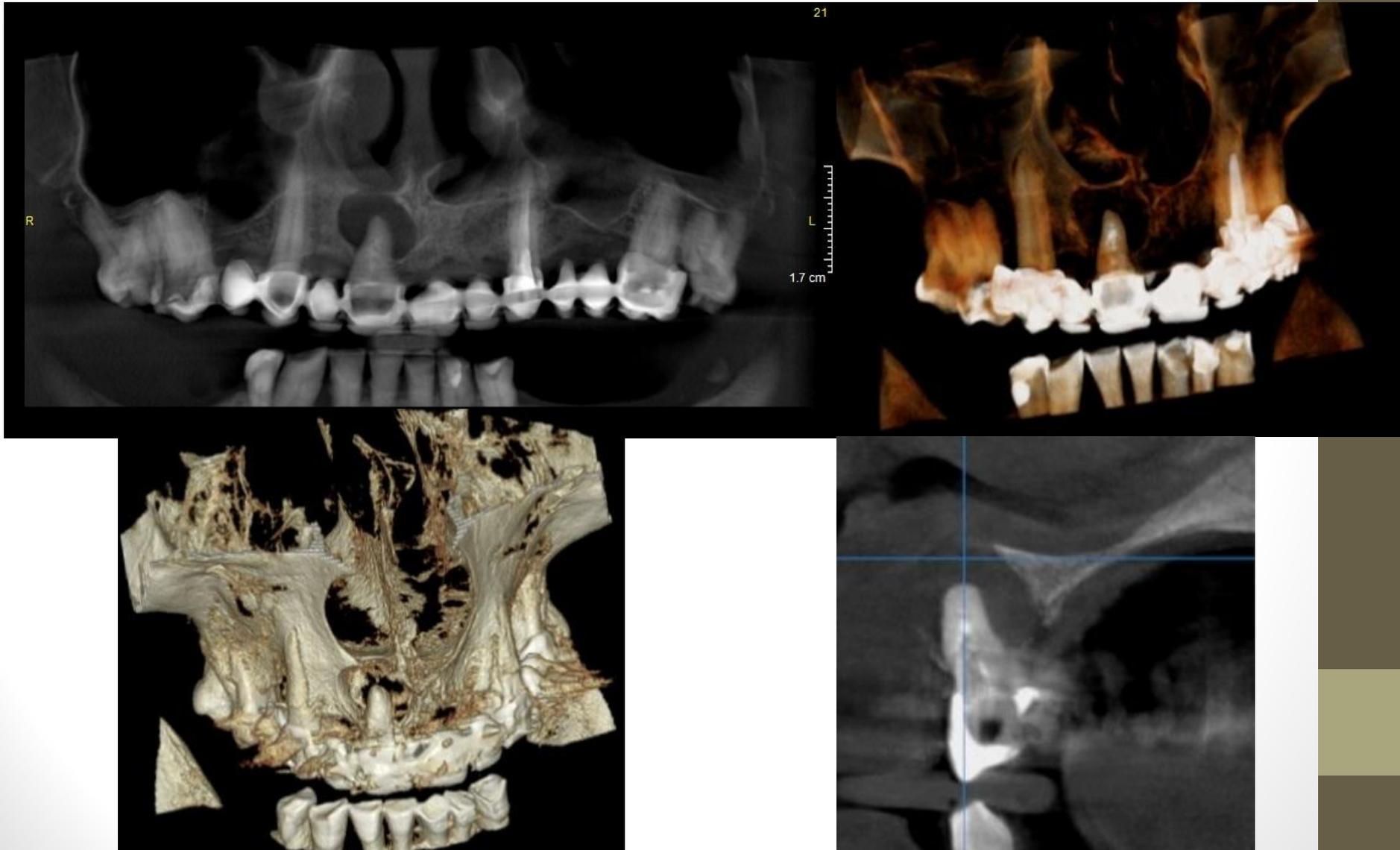
Teeth

Auto-Fit  
Auto Preset  
Load Preset  
Save Preset  
Windowing

2000 [2190] 2400 2800 [MPR] Lev: 1953 Wd: 3907 3095 3907



- ORL kirurgija koja podrazumjeva podizanje sinusa, operacije uha, temporalnih kostiju i nosa



Hvala na pažnji!

