

X-rays and how to read them

MDDr. Julie Bartáková

STK FNUSA

LF MU

Department of restorative dentistry

OPG (orthopanthomogram)



- X-ray of upper and lower jaw, sinuses, temporomandibular joint

Right orientation of OPG



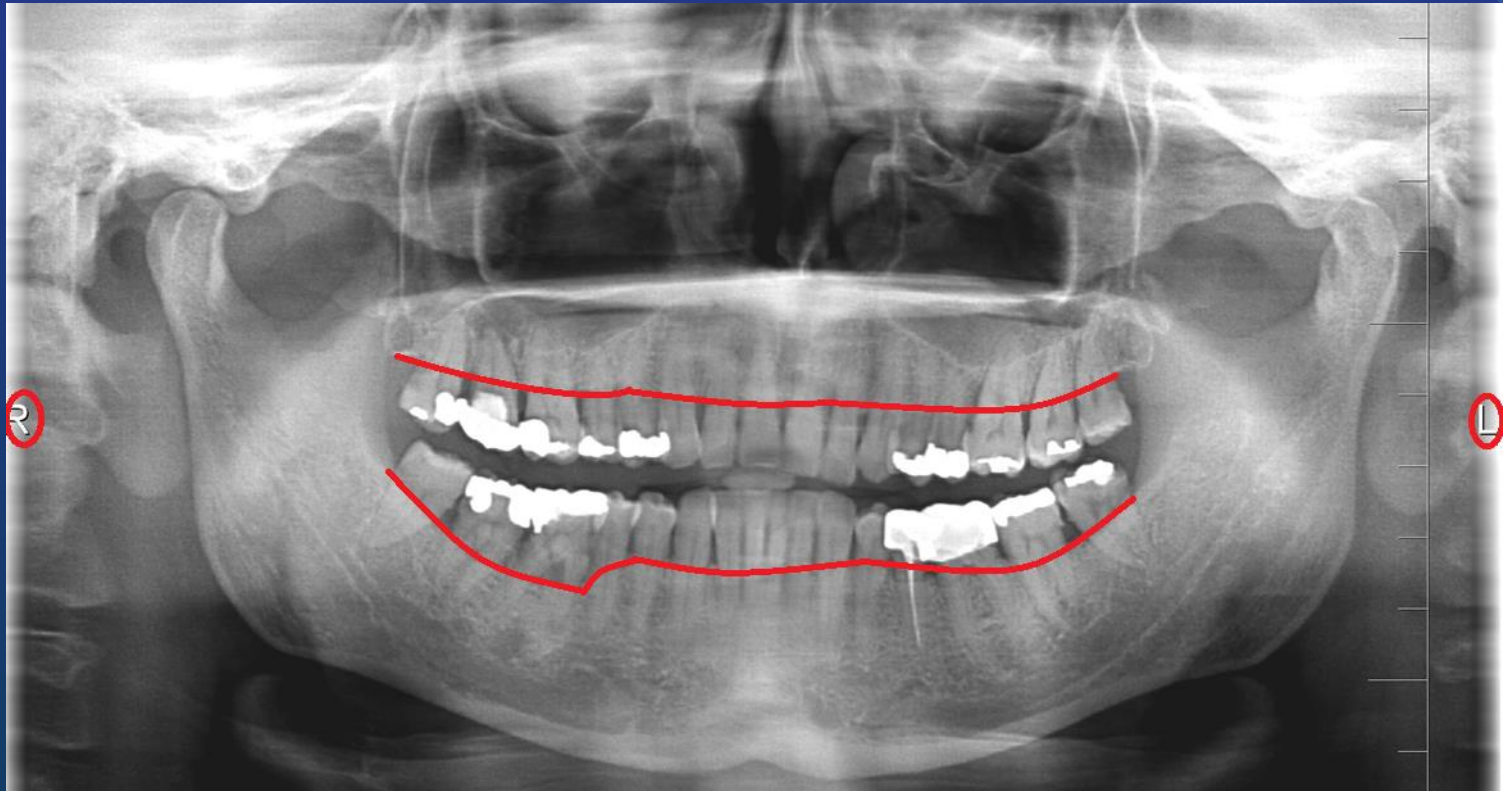
Wrong orientation



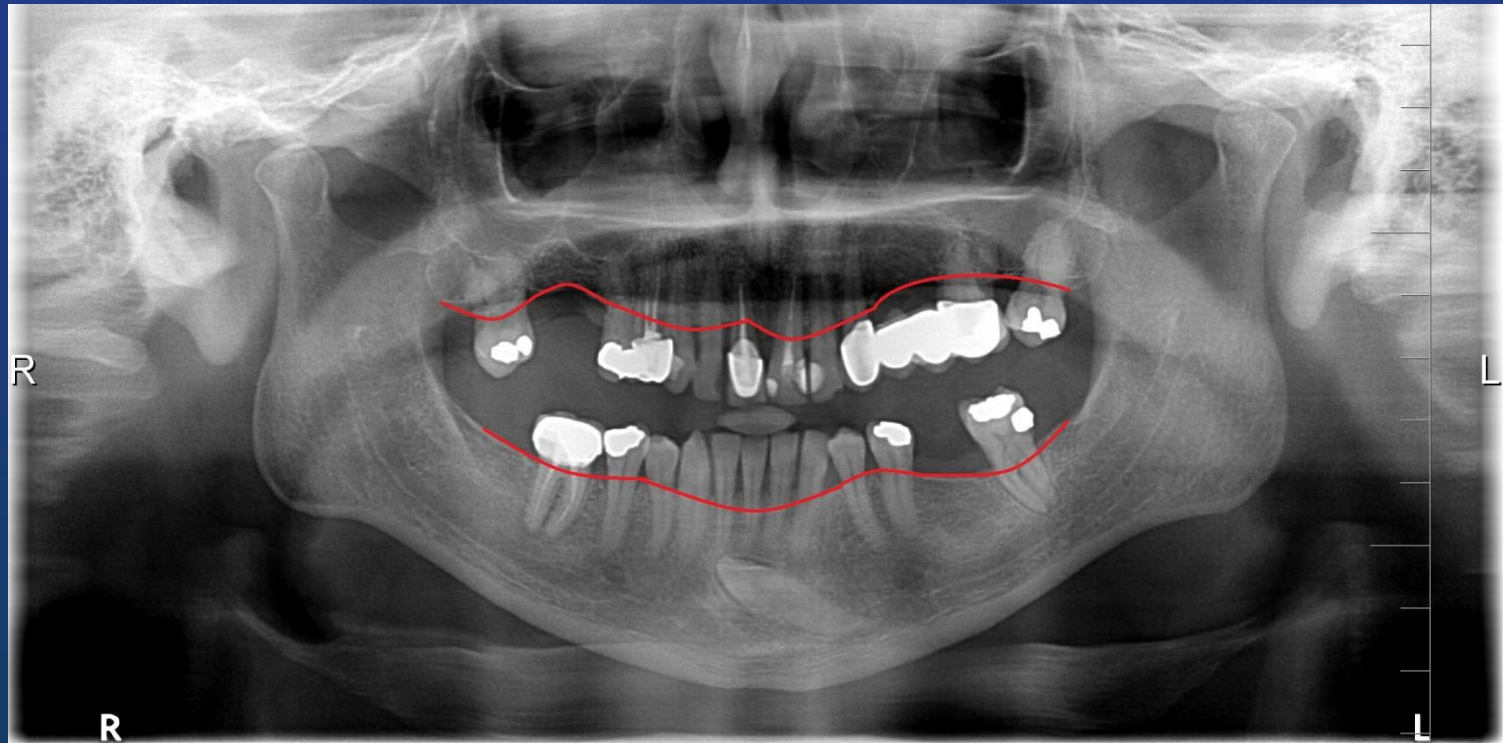
Wrong orientation



Level of alveolar bone



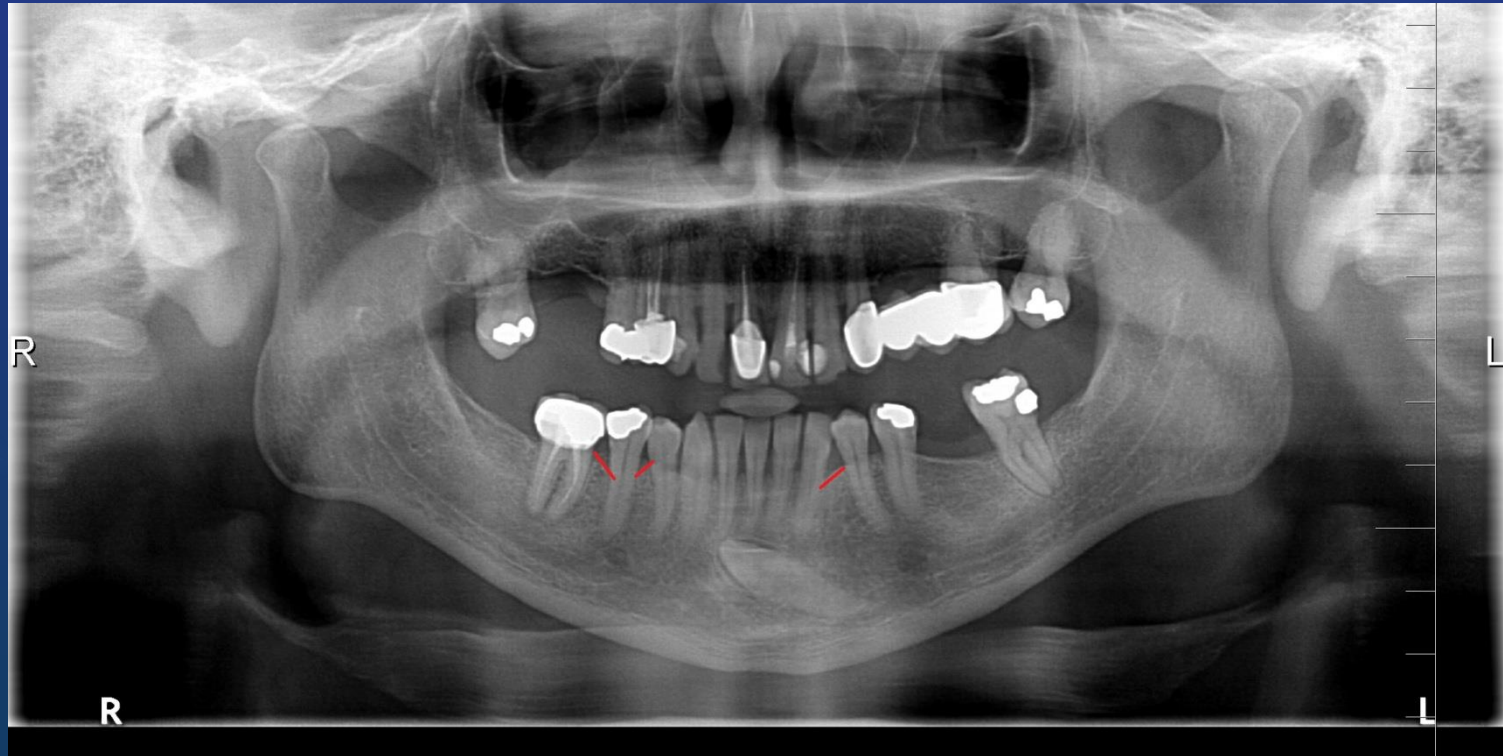
Level of alveolar bone



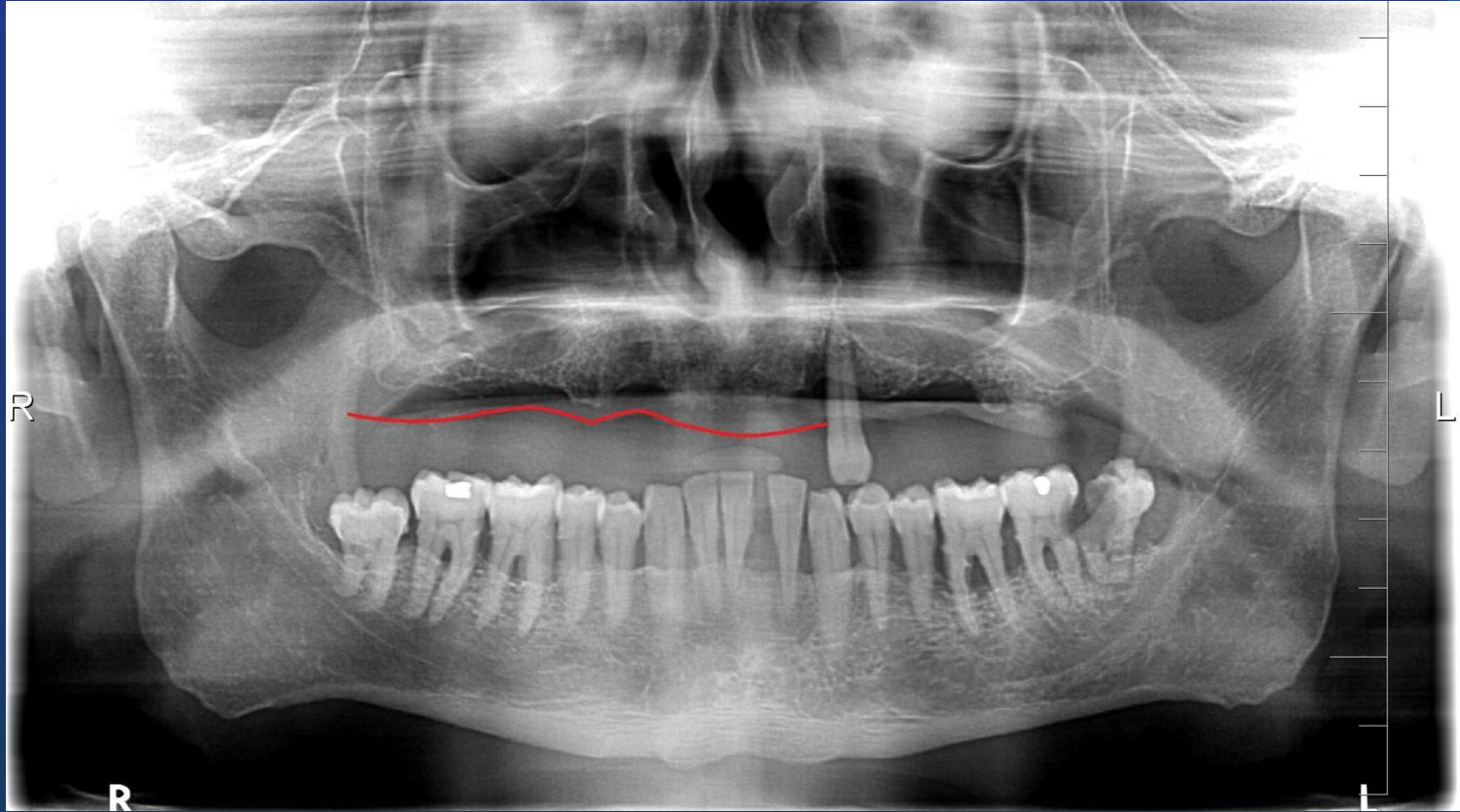
Horizontal resorption of alveolar bone



Vertical resorbtion of alveolar bone



Gingiva level



Oral hygiene ???

It is not possible to say according to X-ray – you are able to consider according to:

- Number of teeth in oral cavity
- Number and size of caries and secondary caries
- Number of fillings
- Type and size of fillings: class I.,II.,III.,IV.,V.,VI.
- Number of teeth with and without endodontical treatment
- Quality of endodontical treatment
- Number of roots (radices)
- Number and type of prosthodontic works
- Dental stone

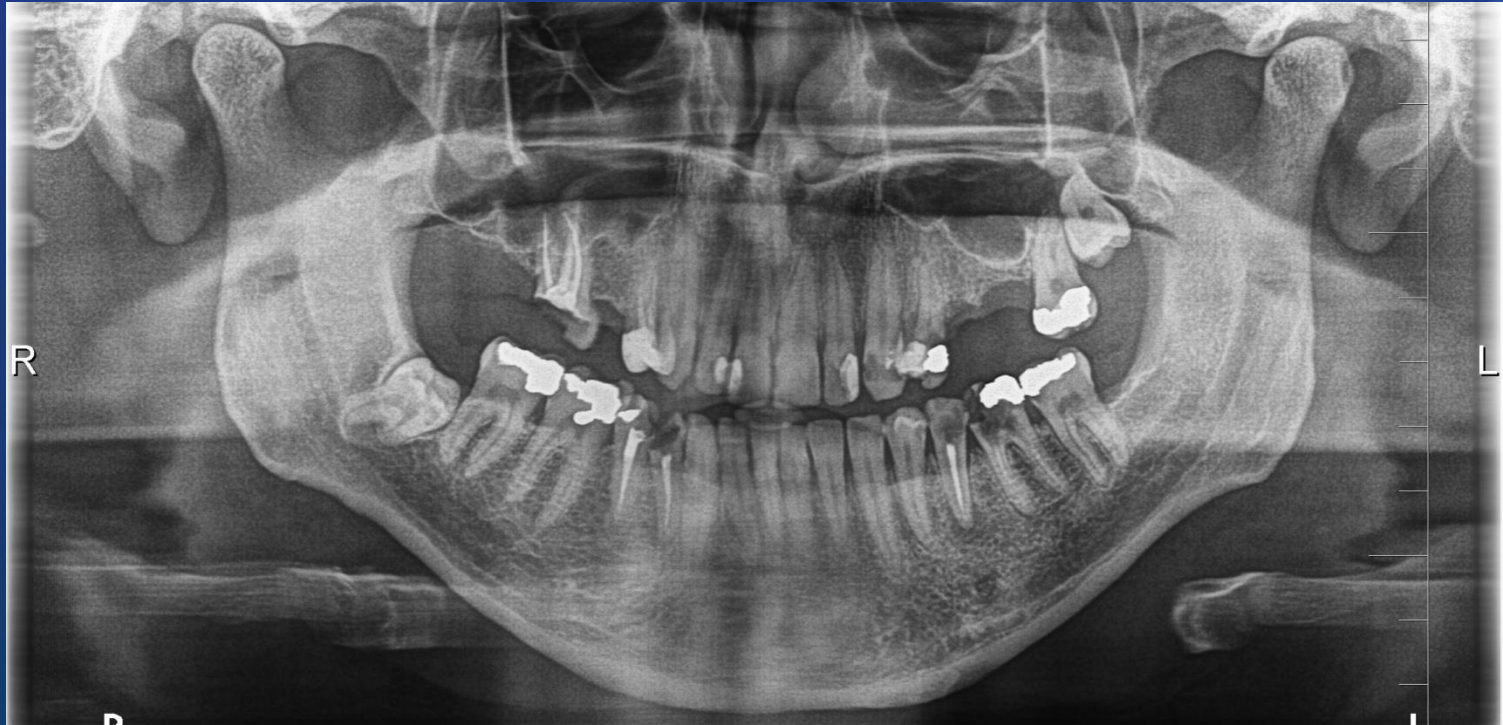
Hygiene probably **good**



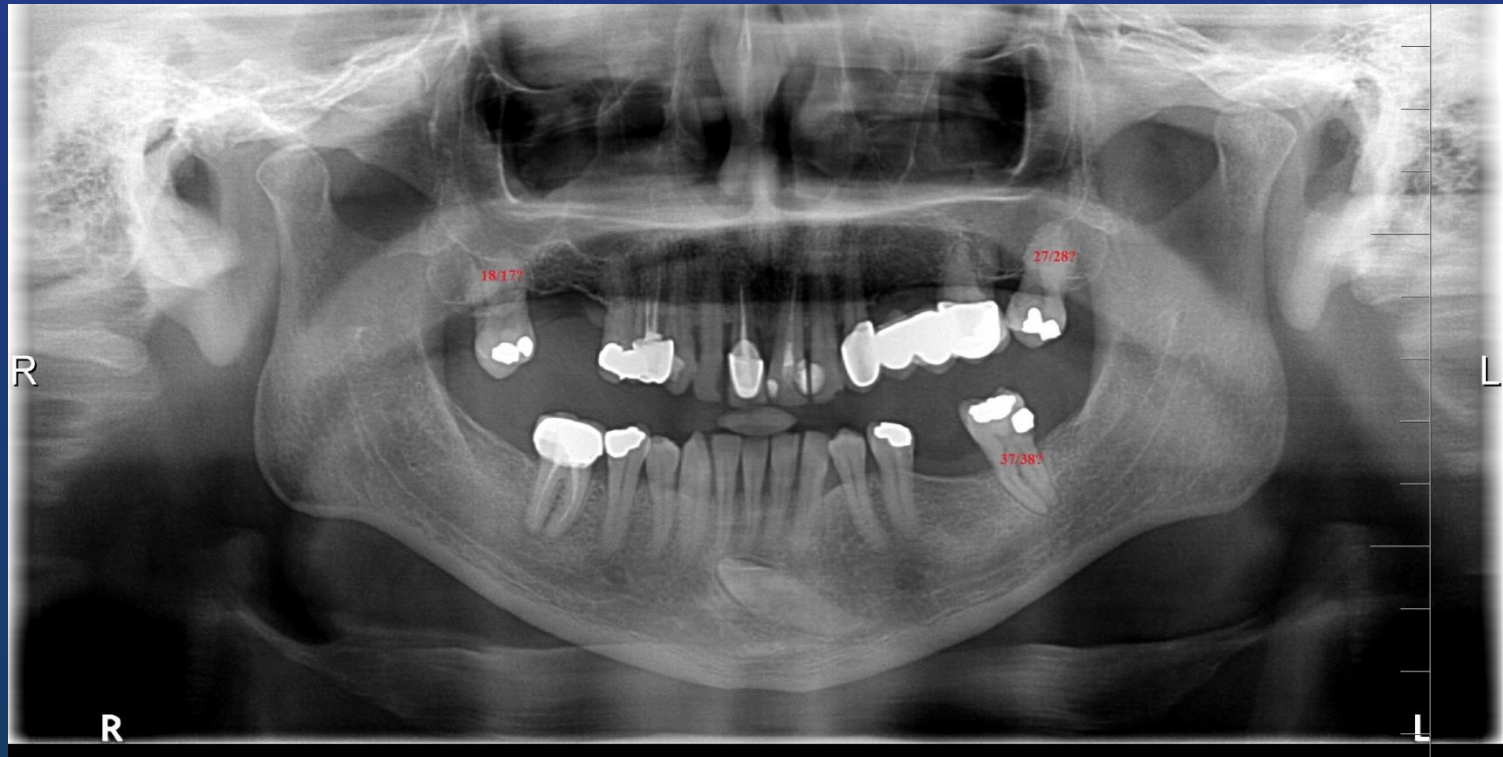
Hygiene probably **average**



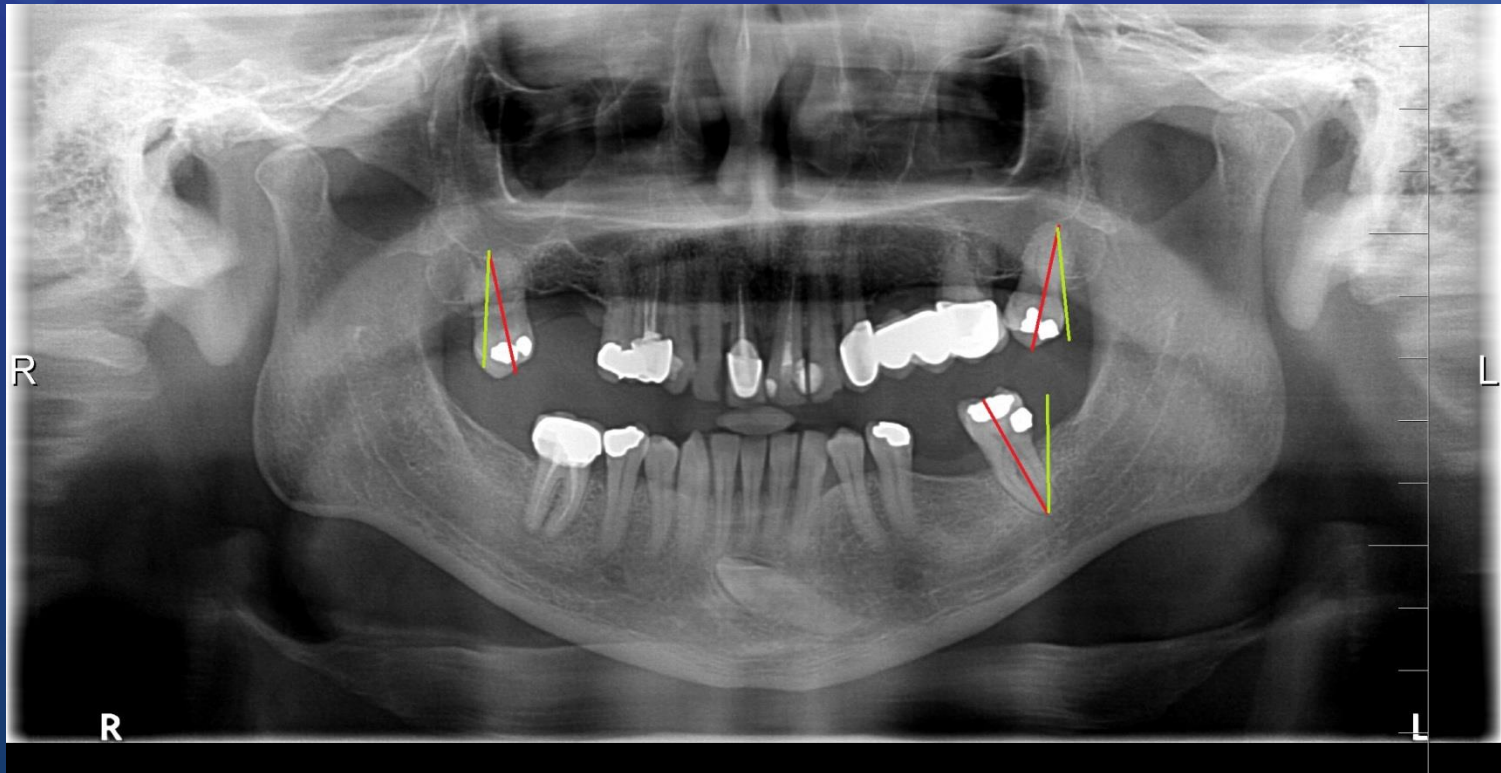
Probably **bad oral hygiene**



Localisation of teeth



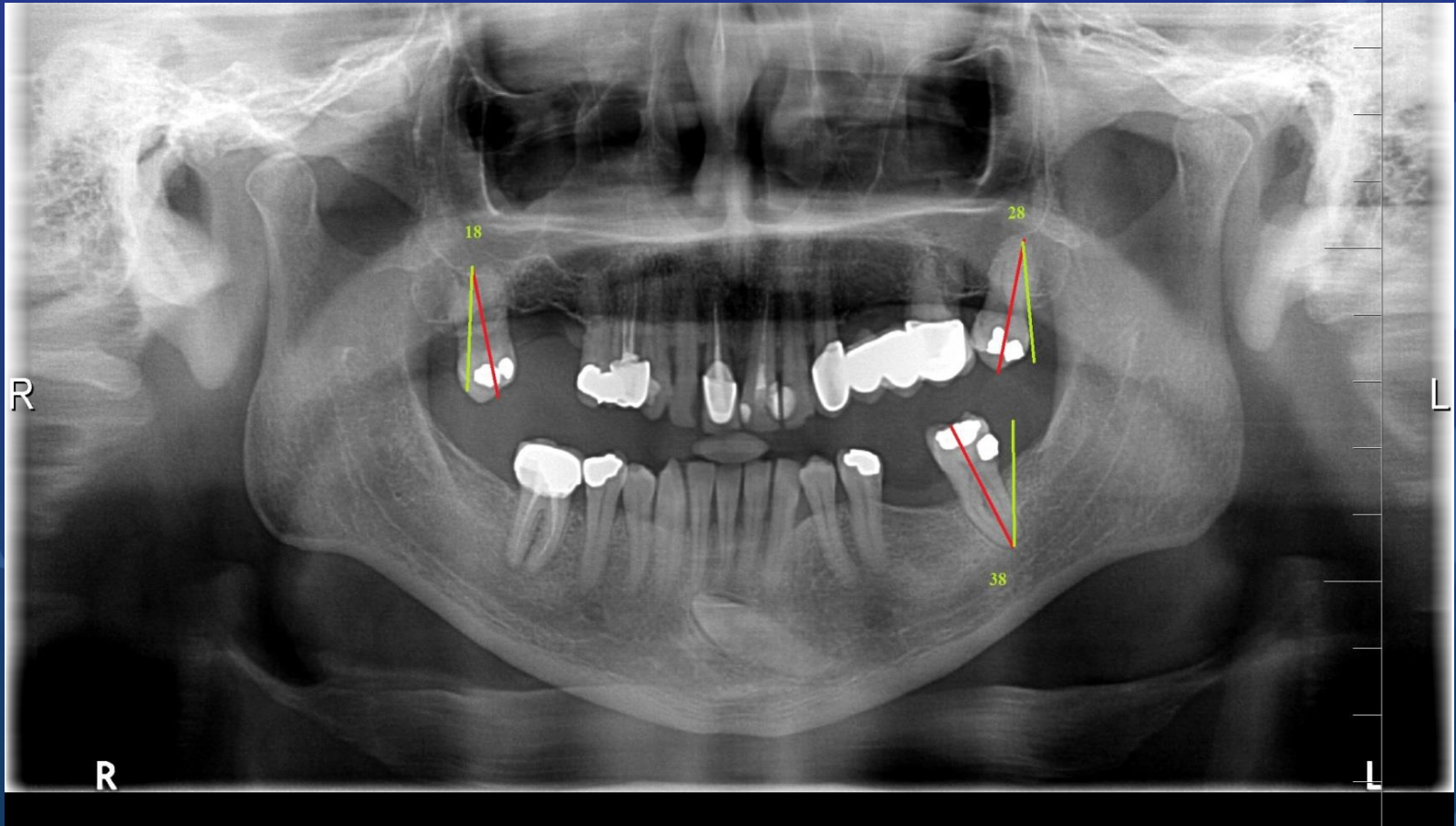
Teeth localisation ?



Red – axis of tooth in current position, after moving into the gap after previous extracted tooth/teeth

Green – probably original position of tooth, after straightening the axis of tooth to physiological position (it is only indicative position, sometimes it doesn't correspond with real position of tooth)

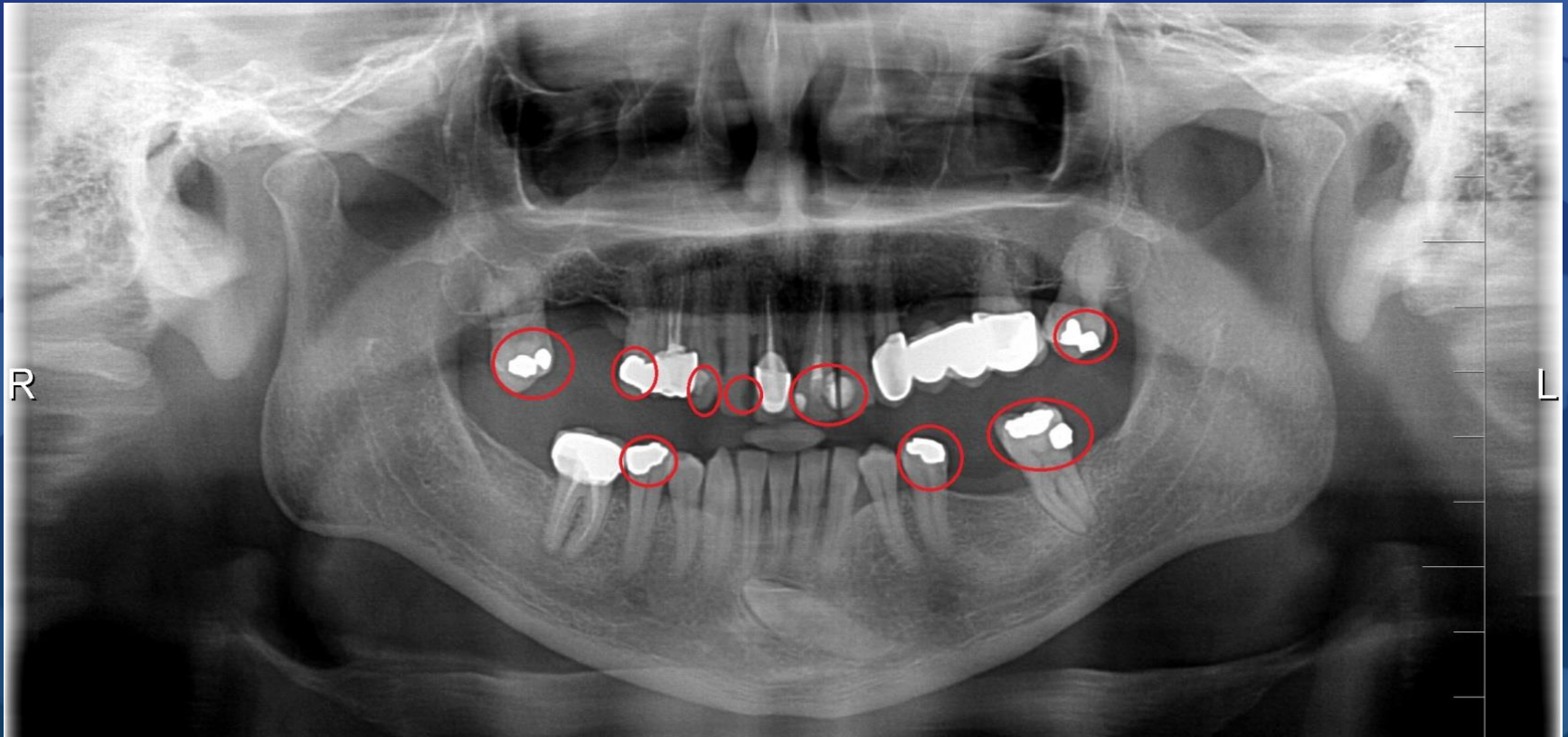
Teeth localisation



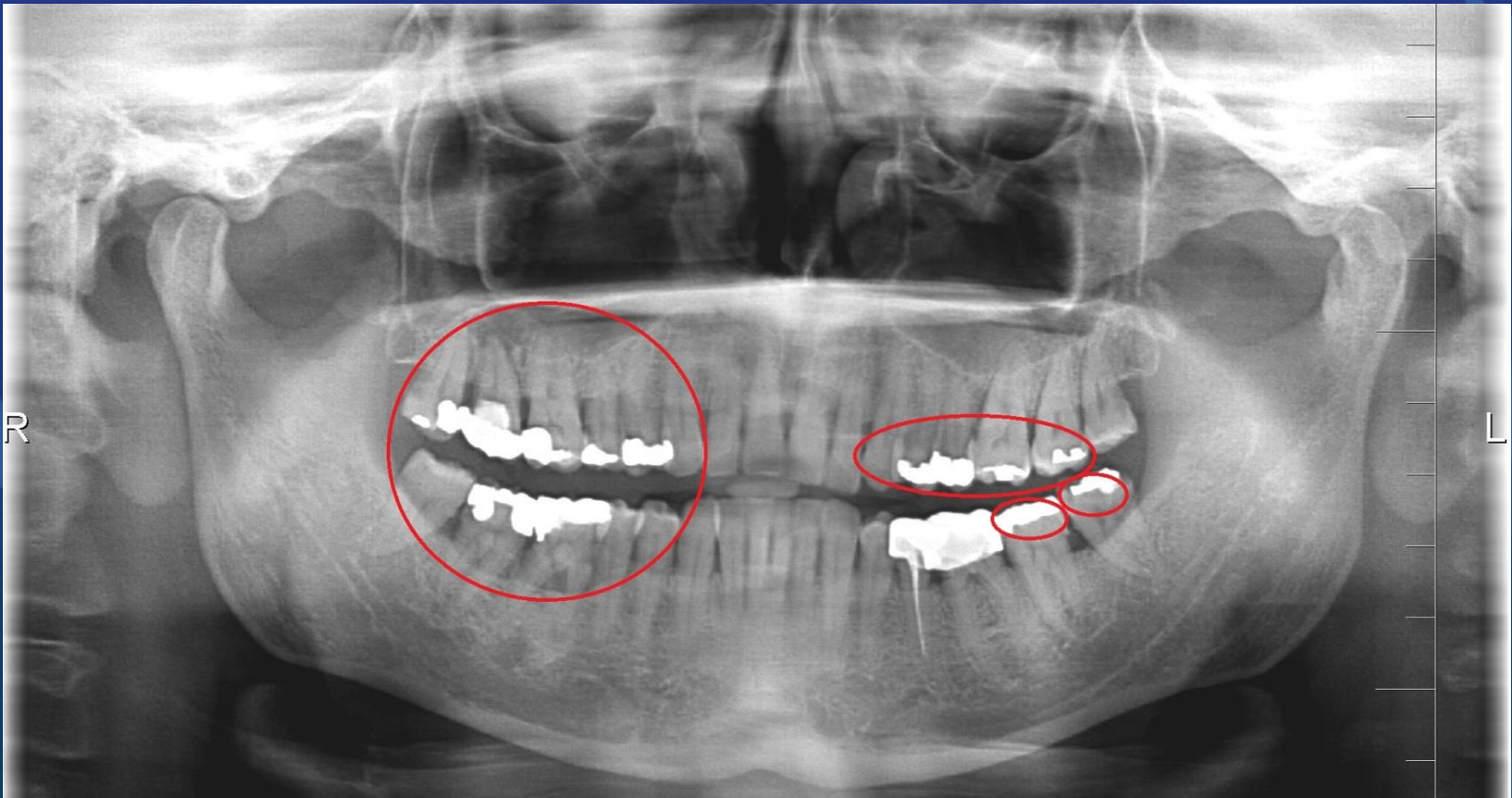
Red - current position of tooth

Green- probably the real position of tooth and number of tooth

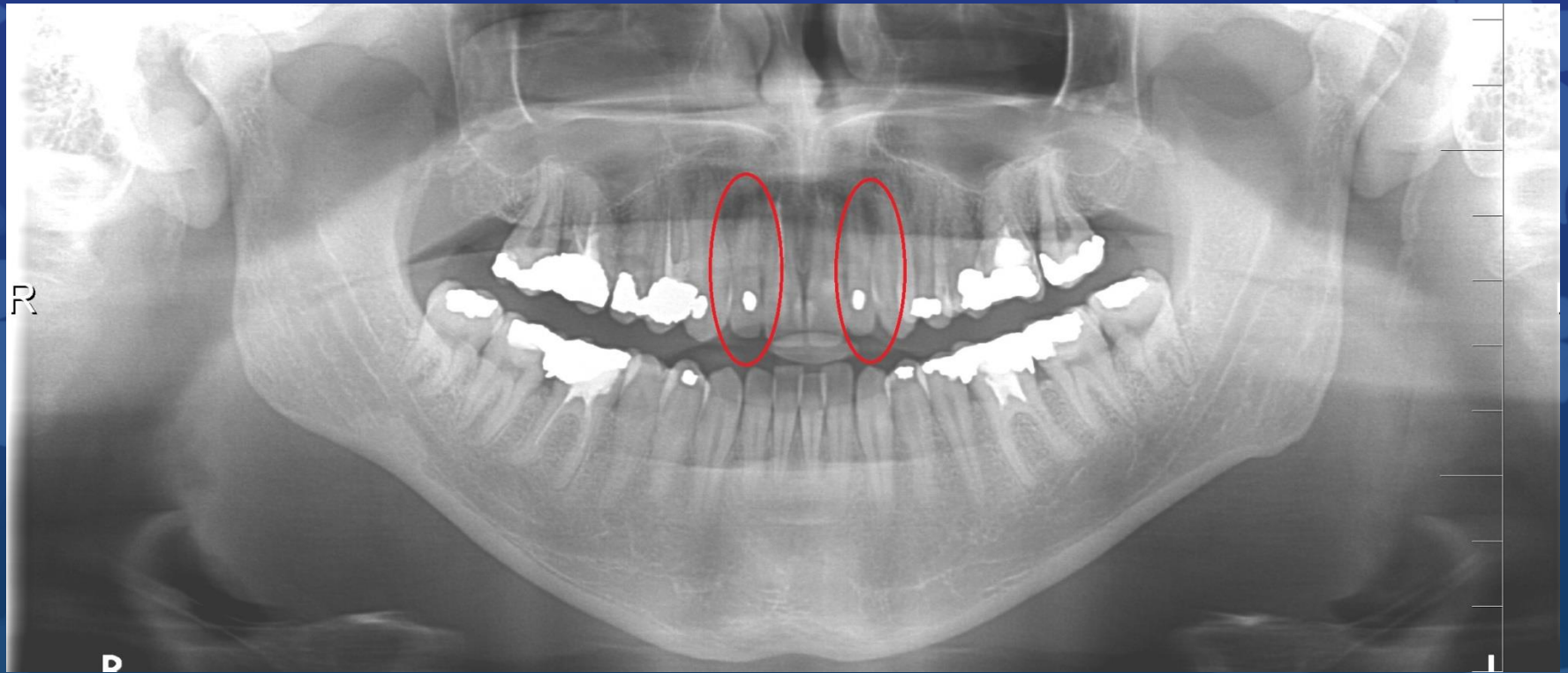
Fillings



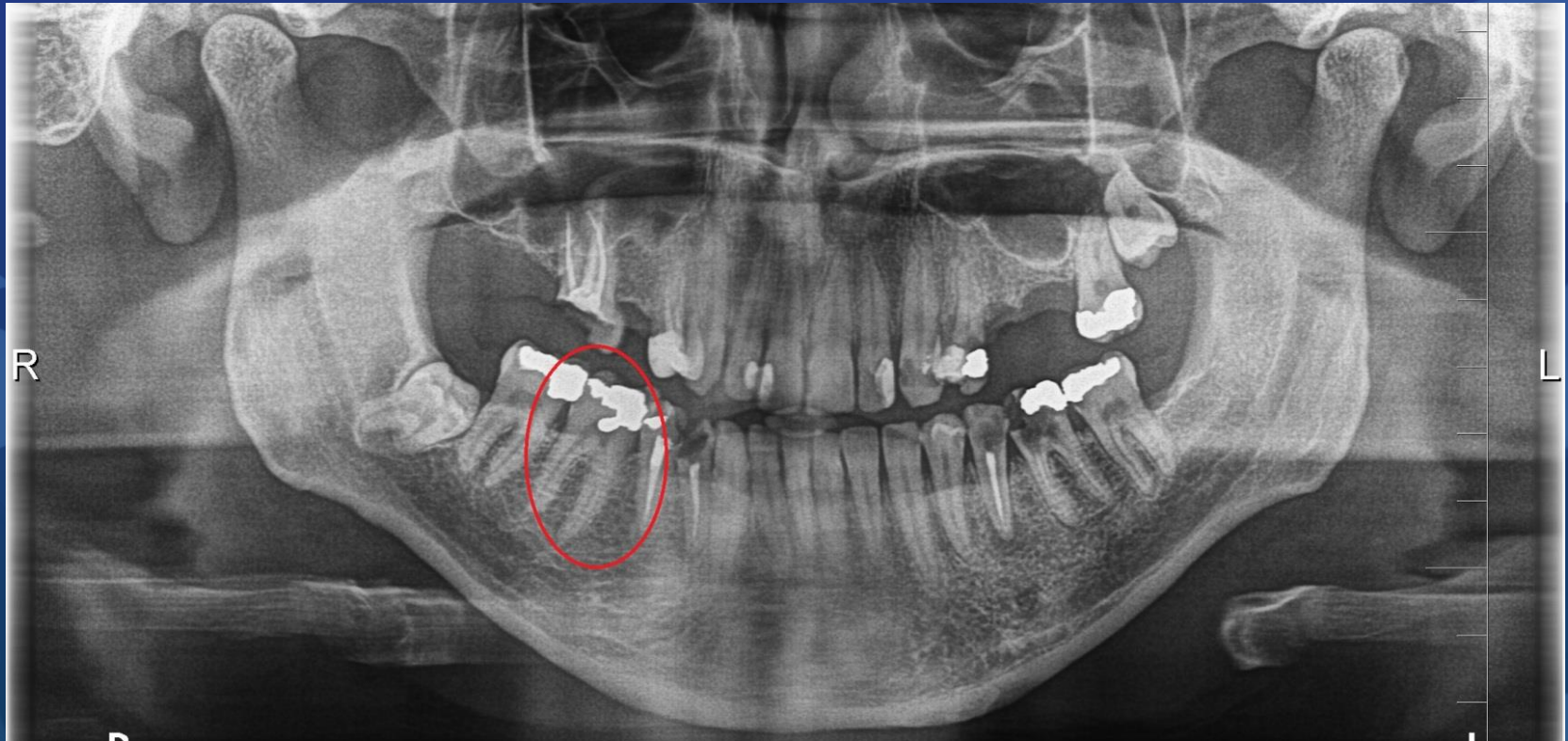
Amalgam fillings



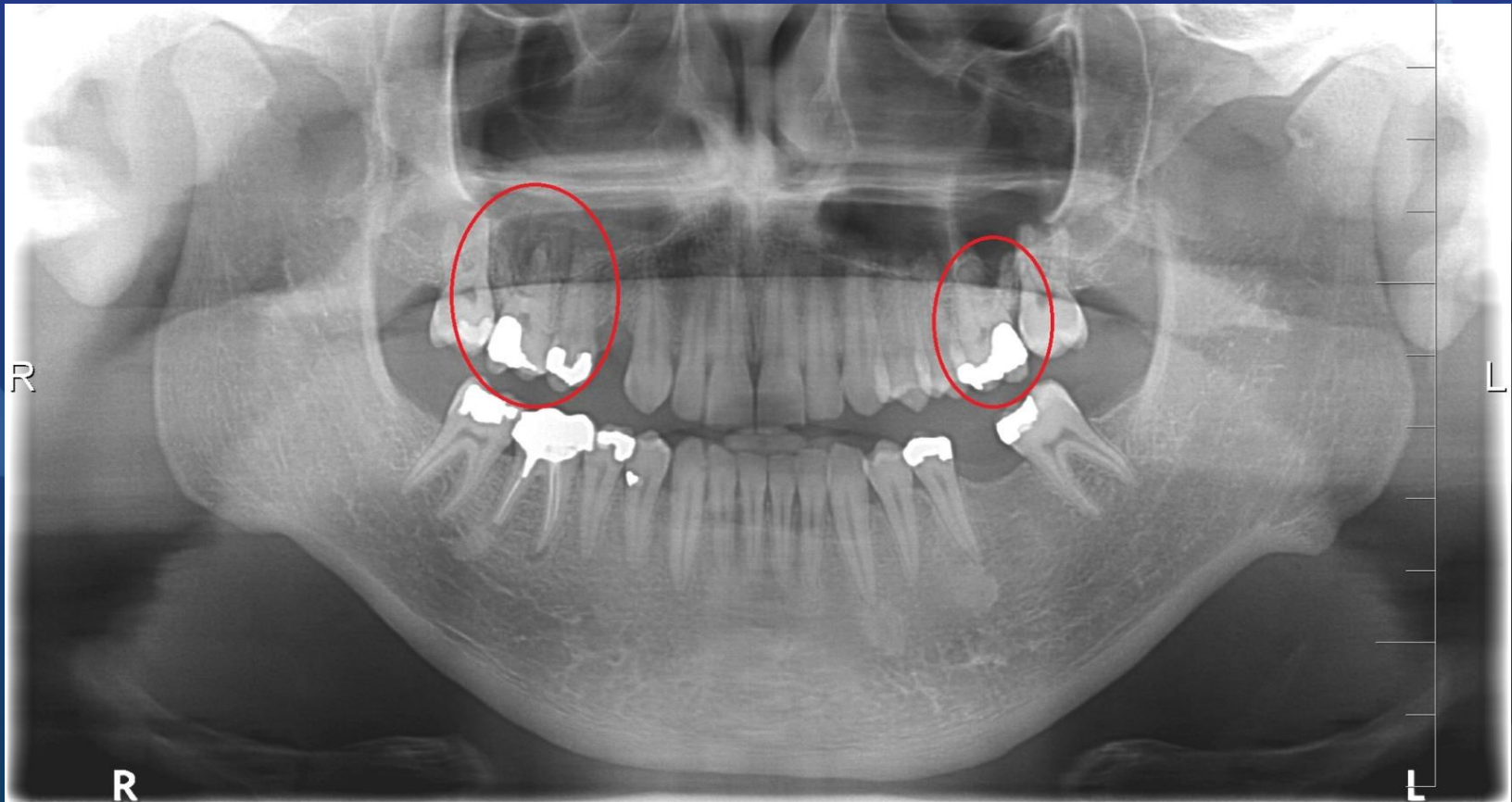
Filling in foramen caecum



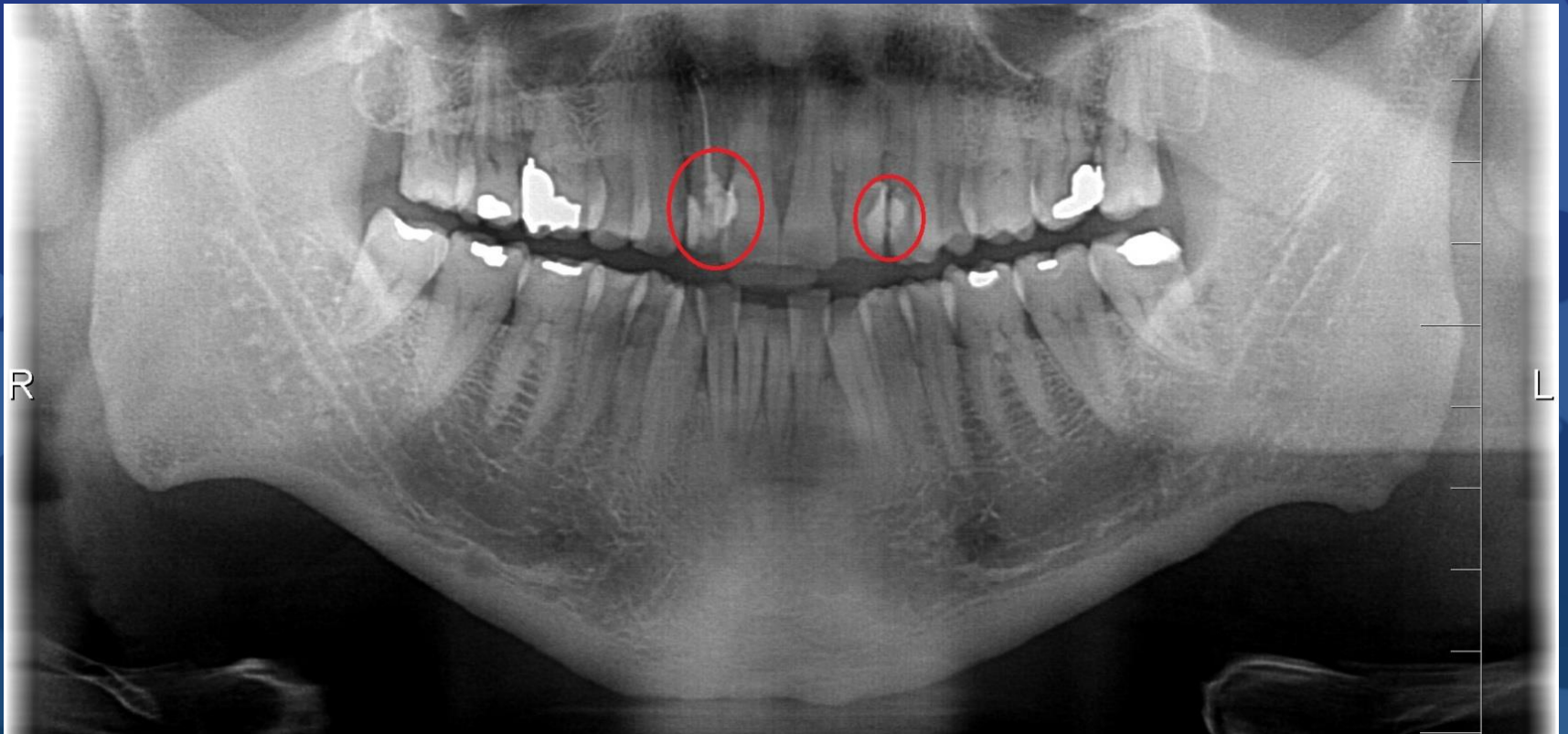
Filling in foramen caecum



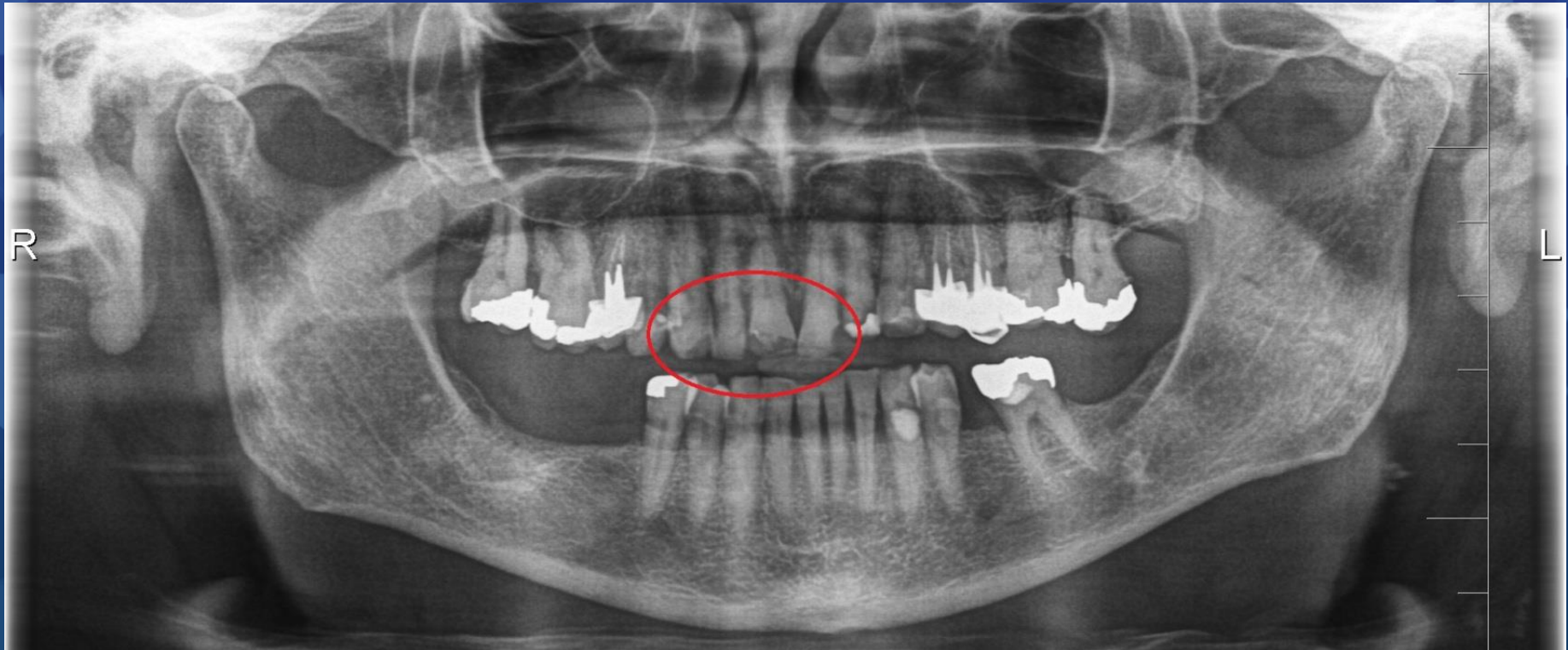
Filling close to the pulp chamber



Composite fillings X-ray contrasting



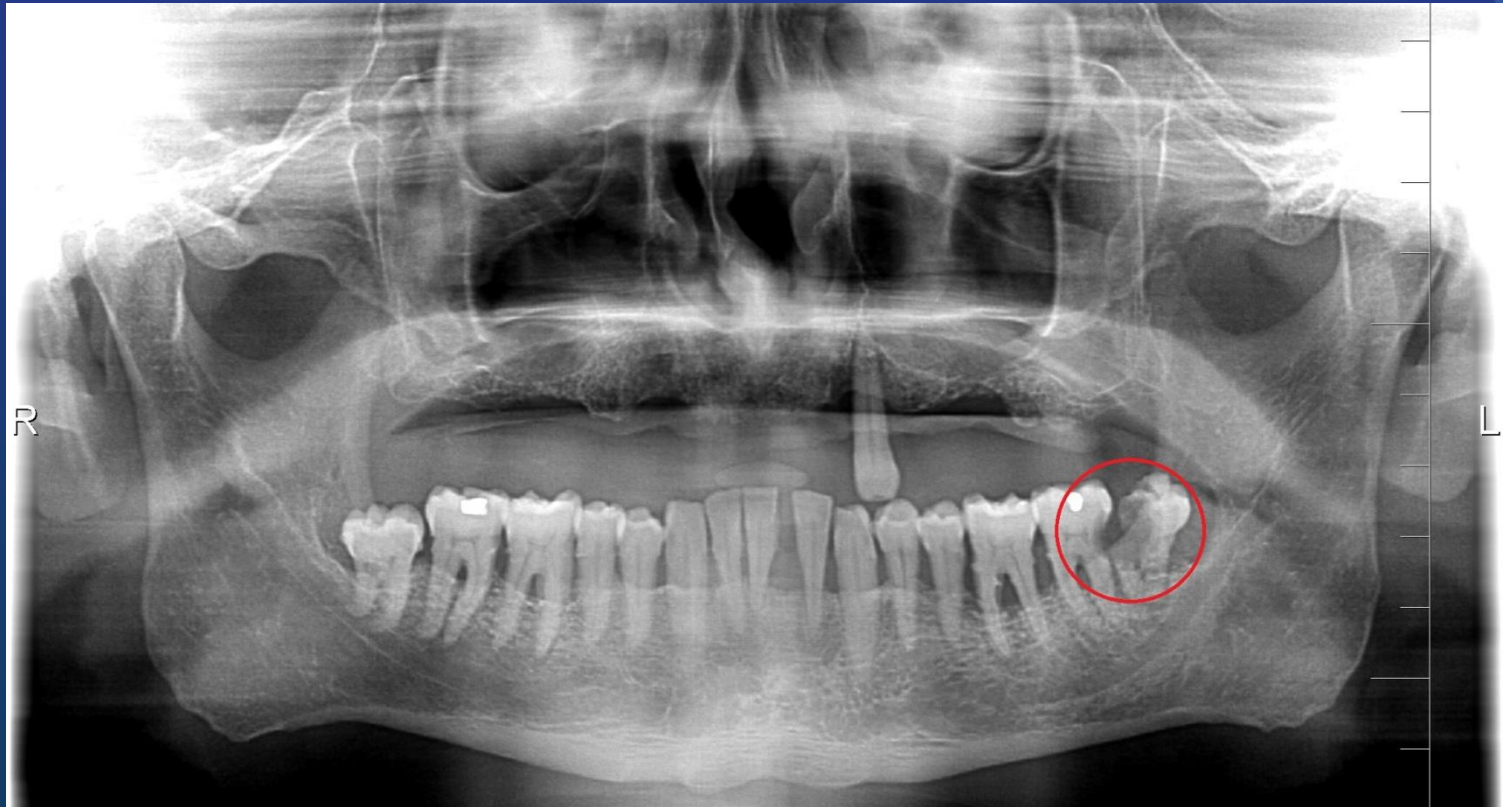
Composite fillings not X-ray contrasting



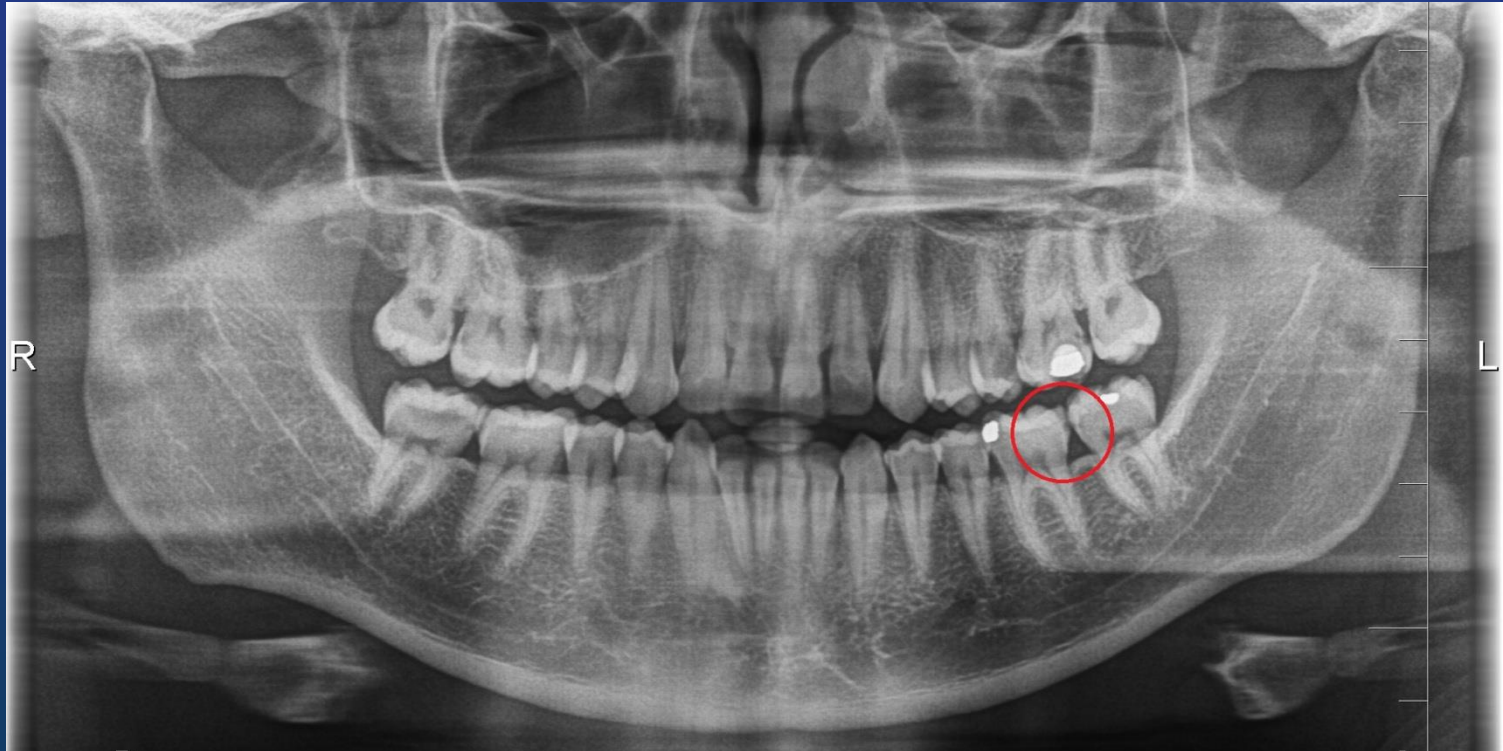
GIC fillings



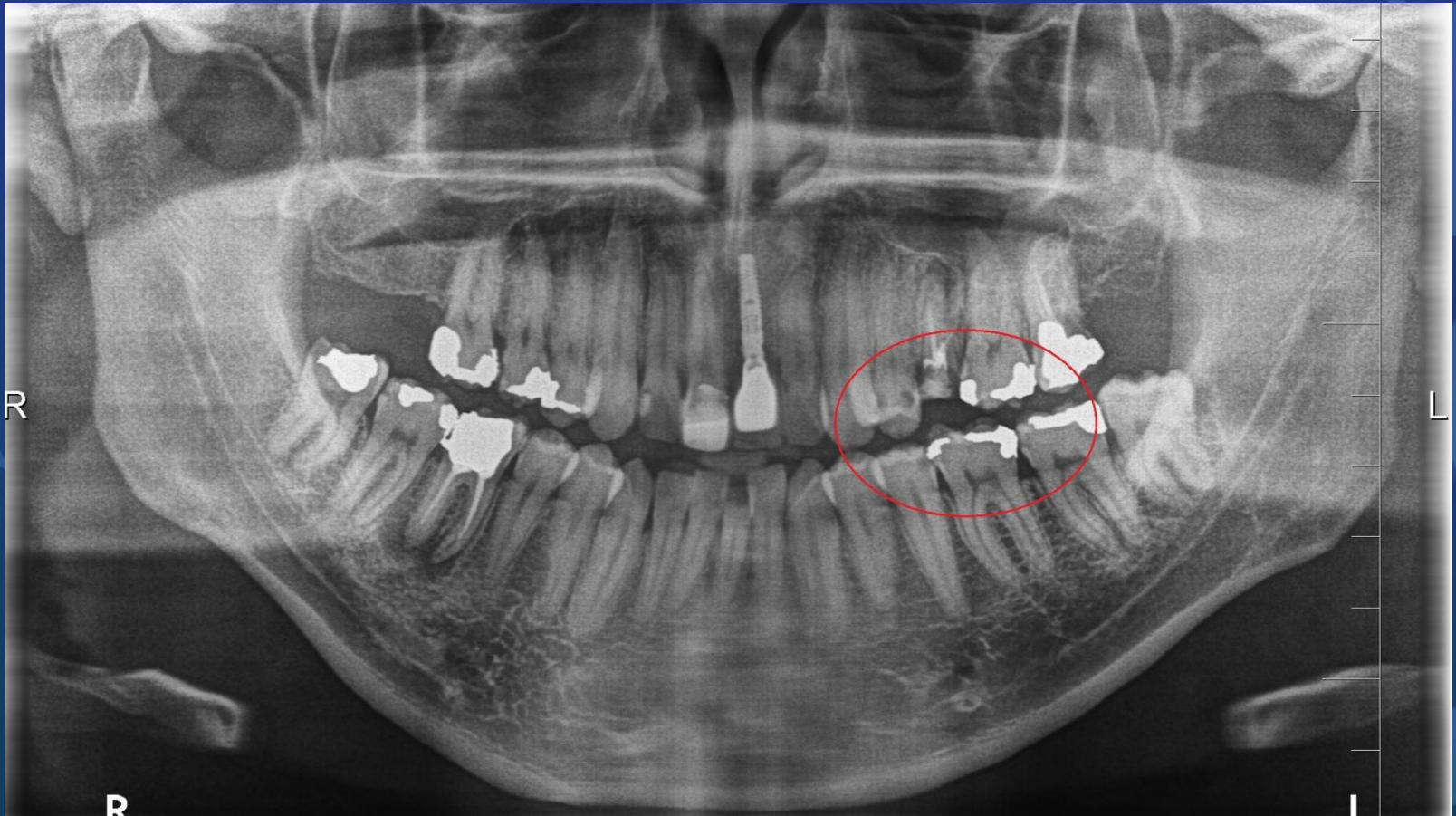
Extensive caries



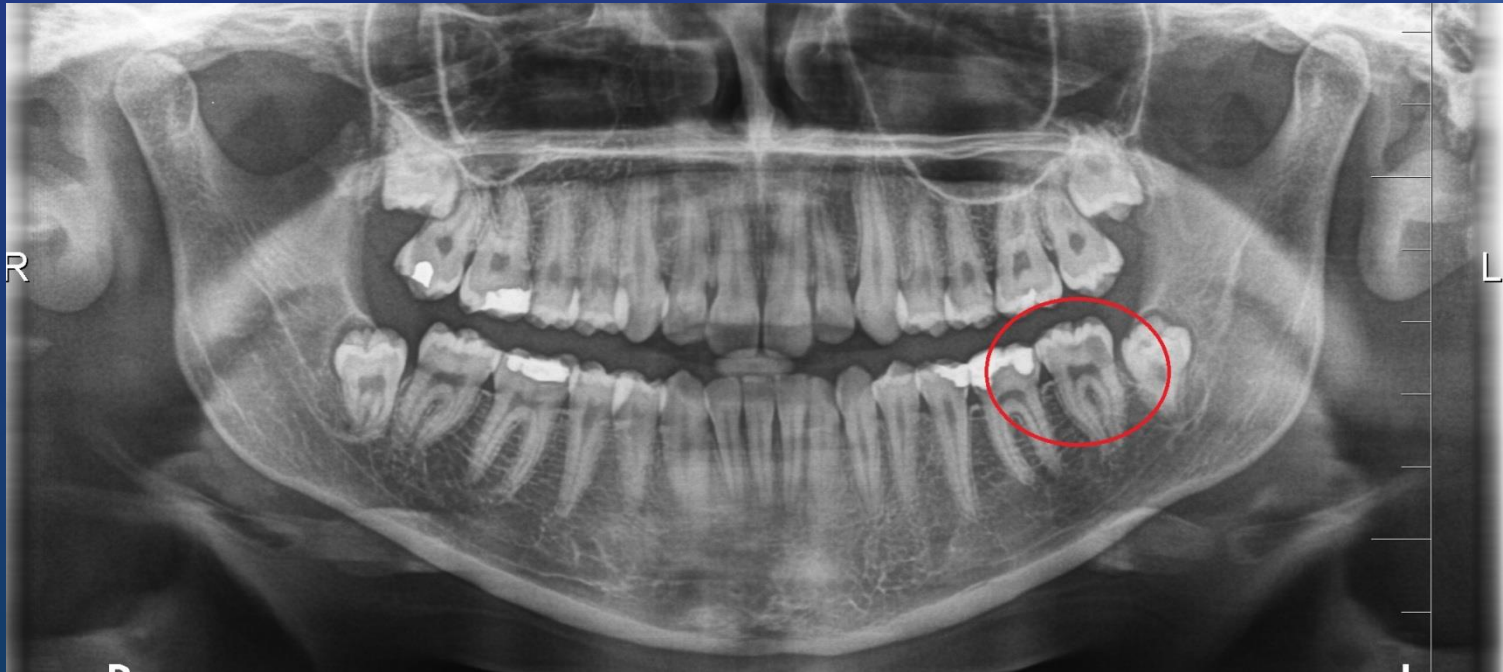
Small caries



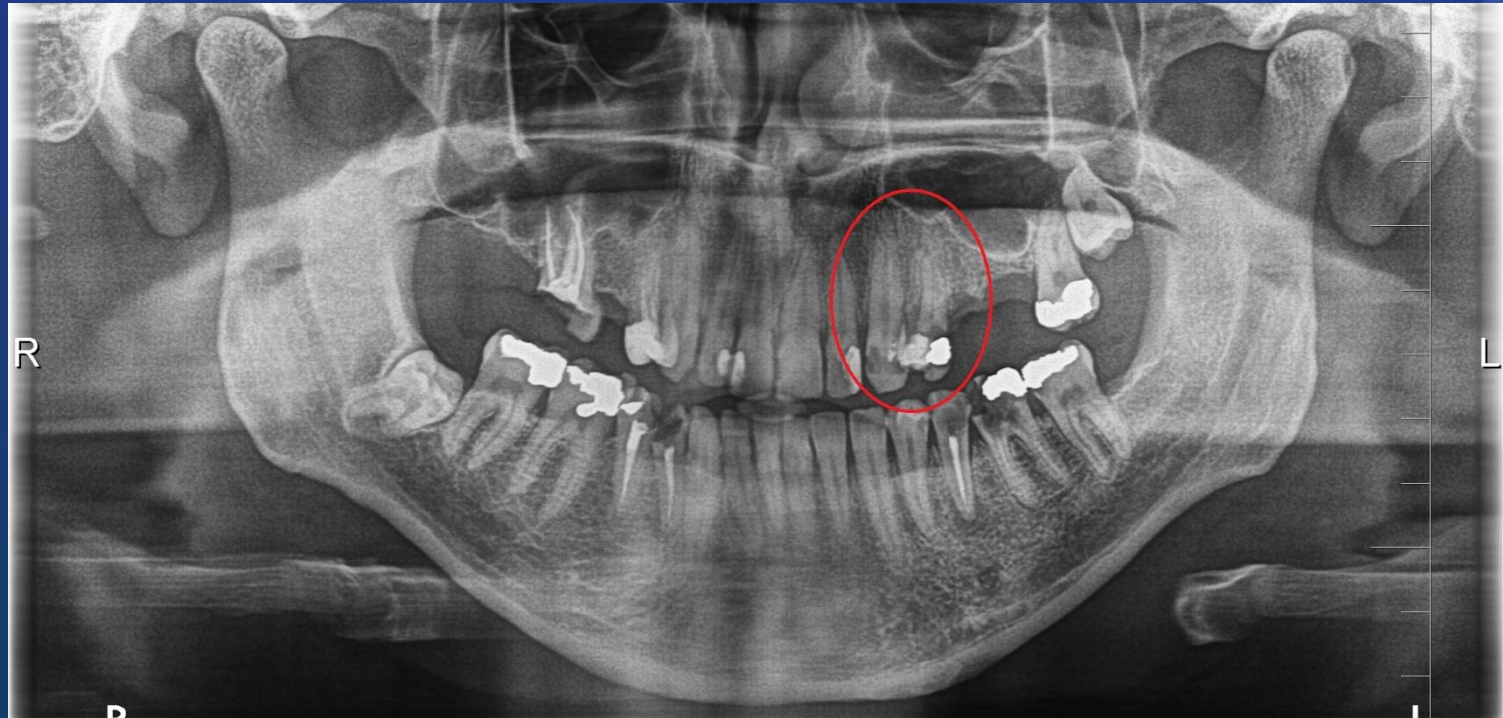
Caries - middle extension



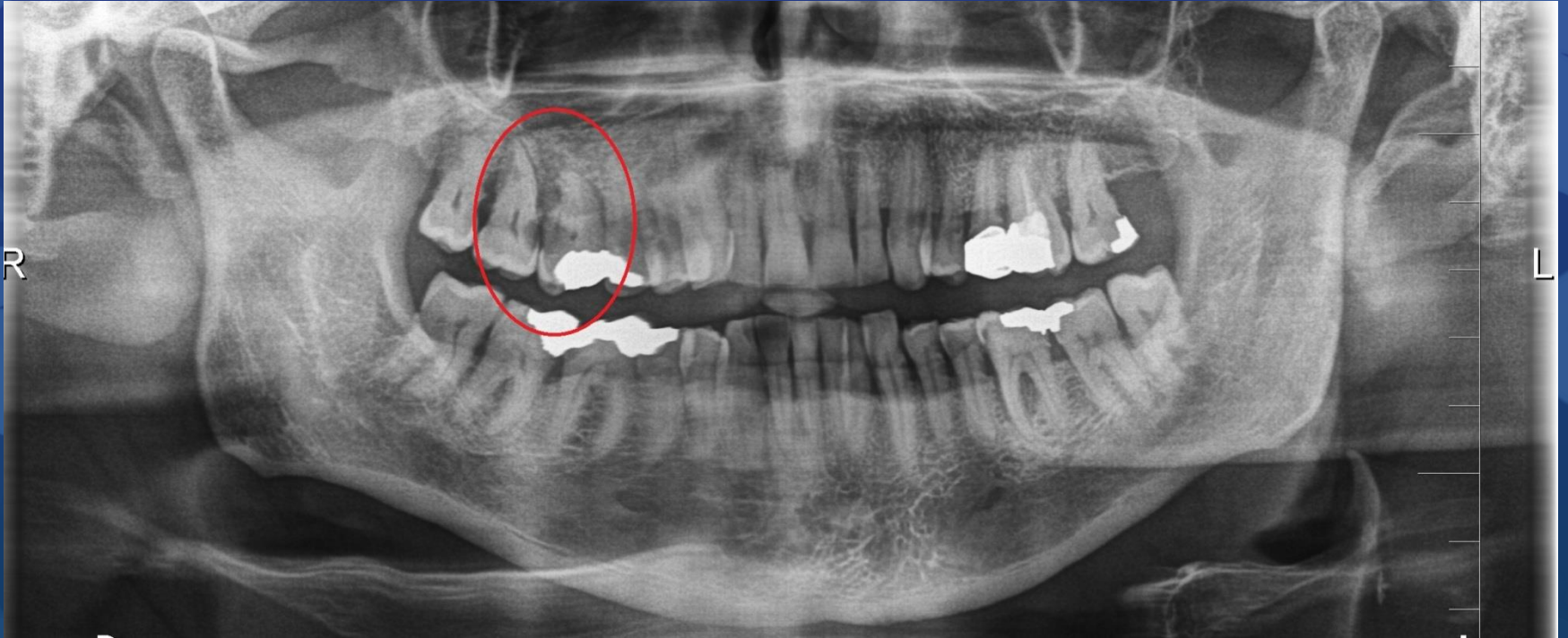
Caries – caries pulpae proxima



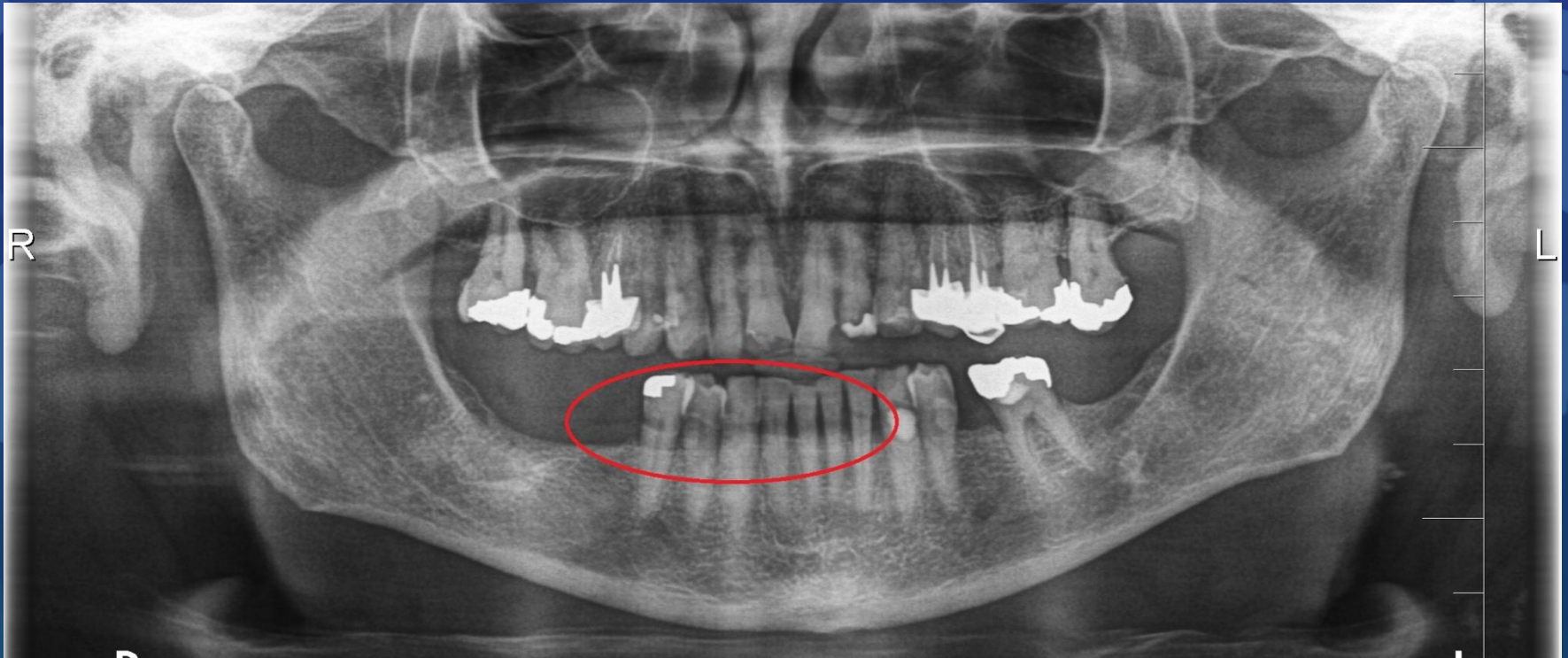
Caries – caries pulpae proxima



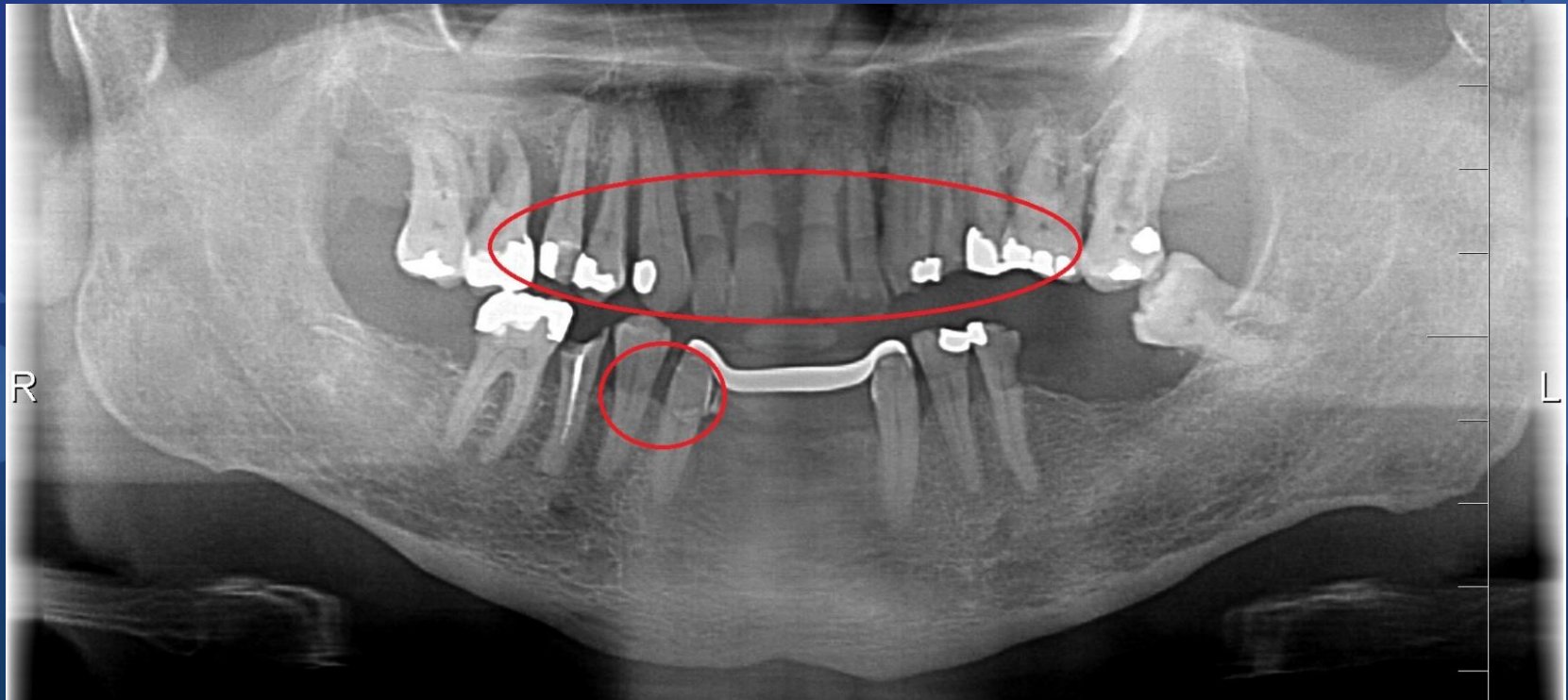
Caries – caries pulpae penetrans



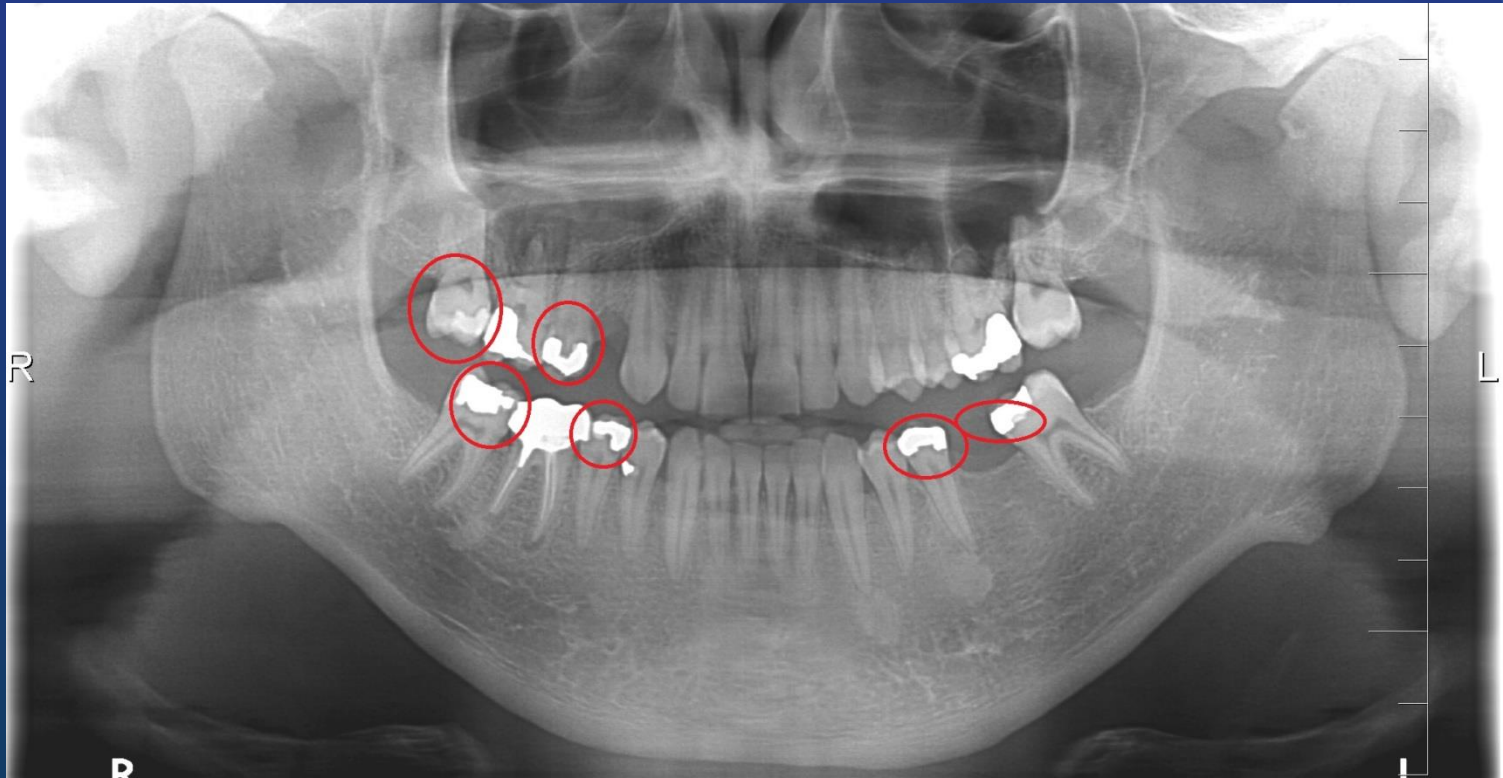
Caries – class V.



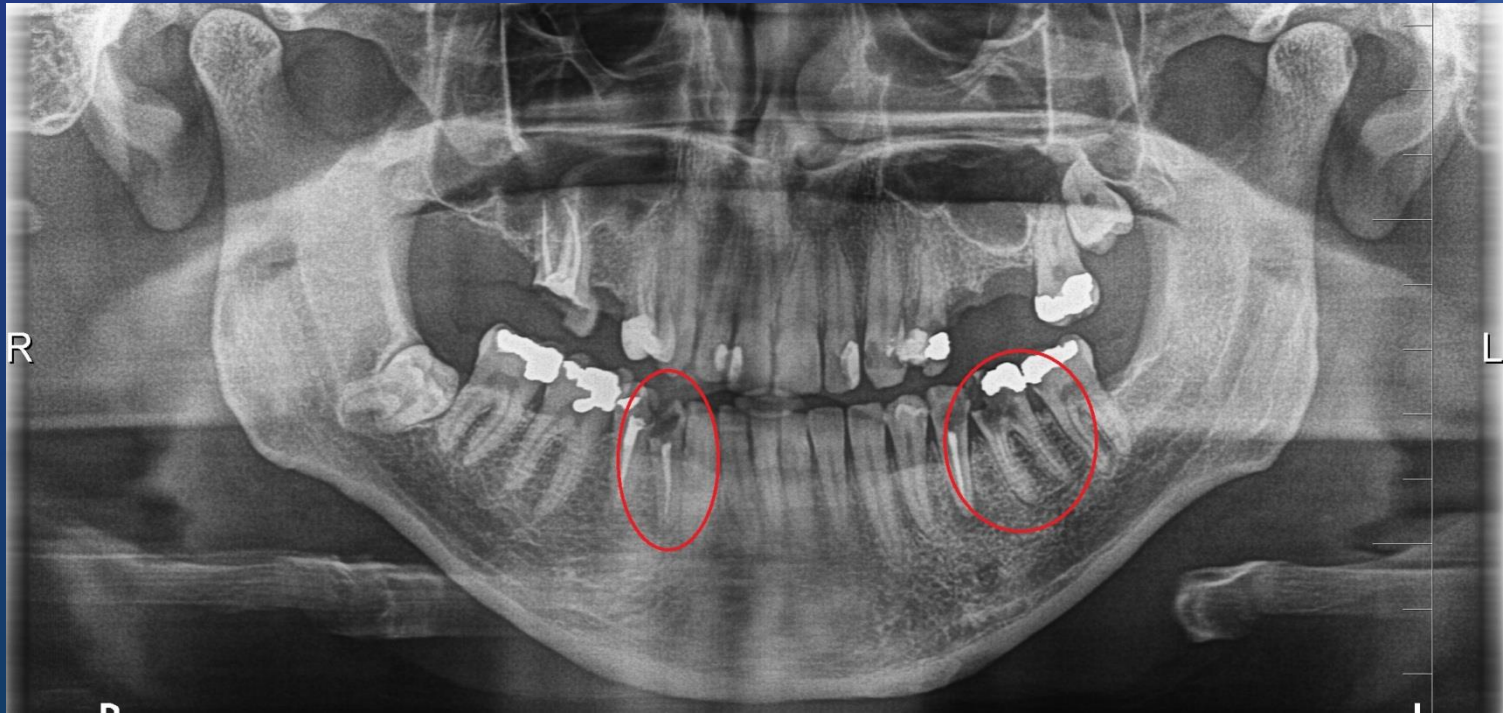
Caries – class V.



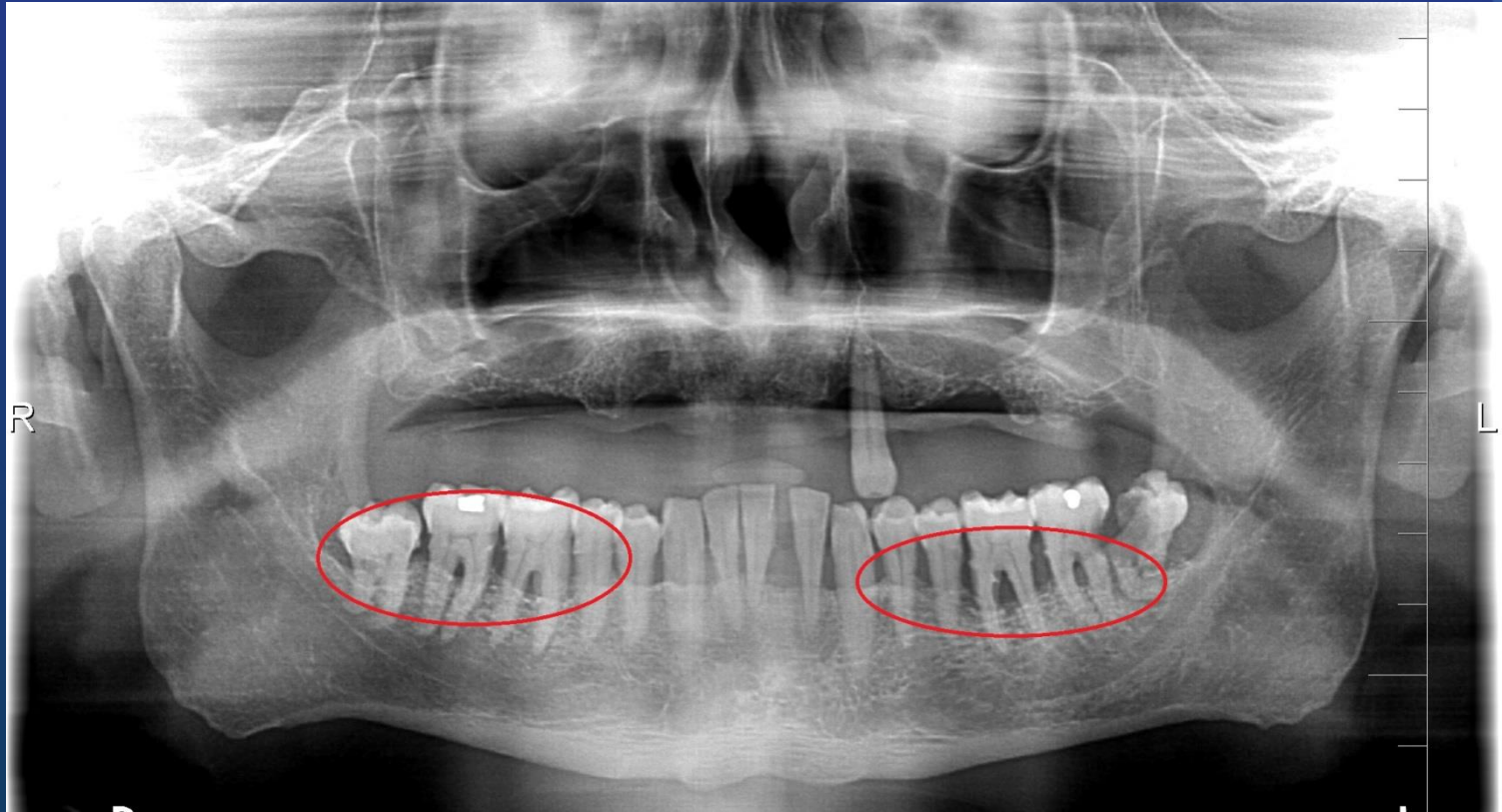
Caries – caries secundaria



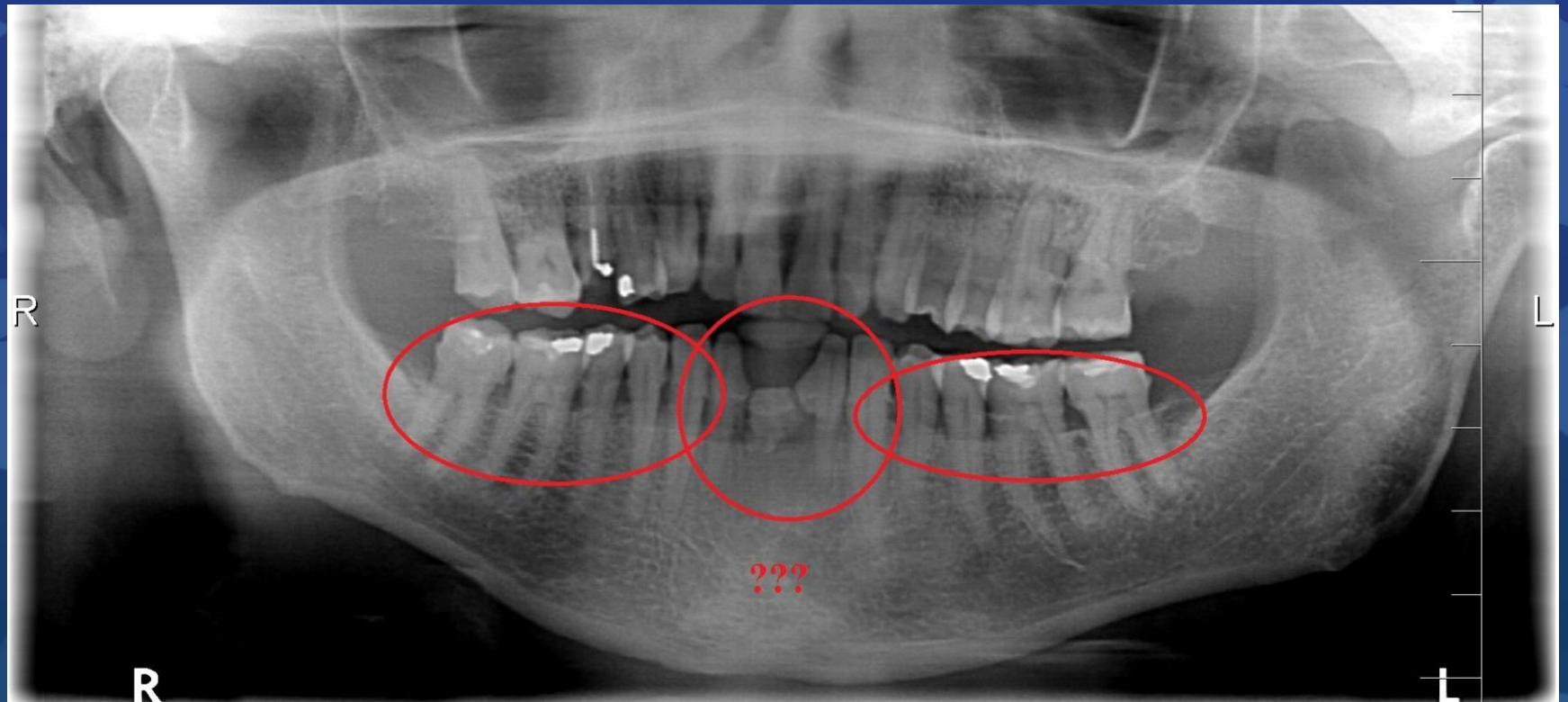
Tooth crown destruction caused by caries



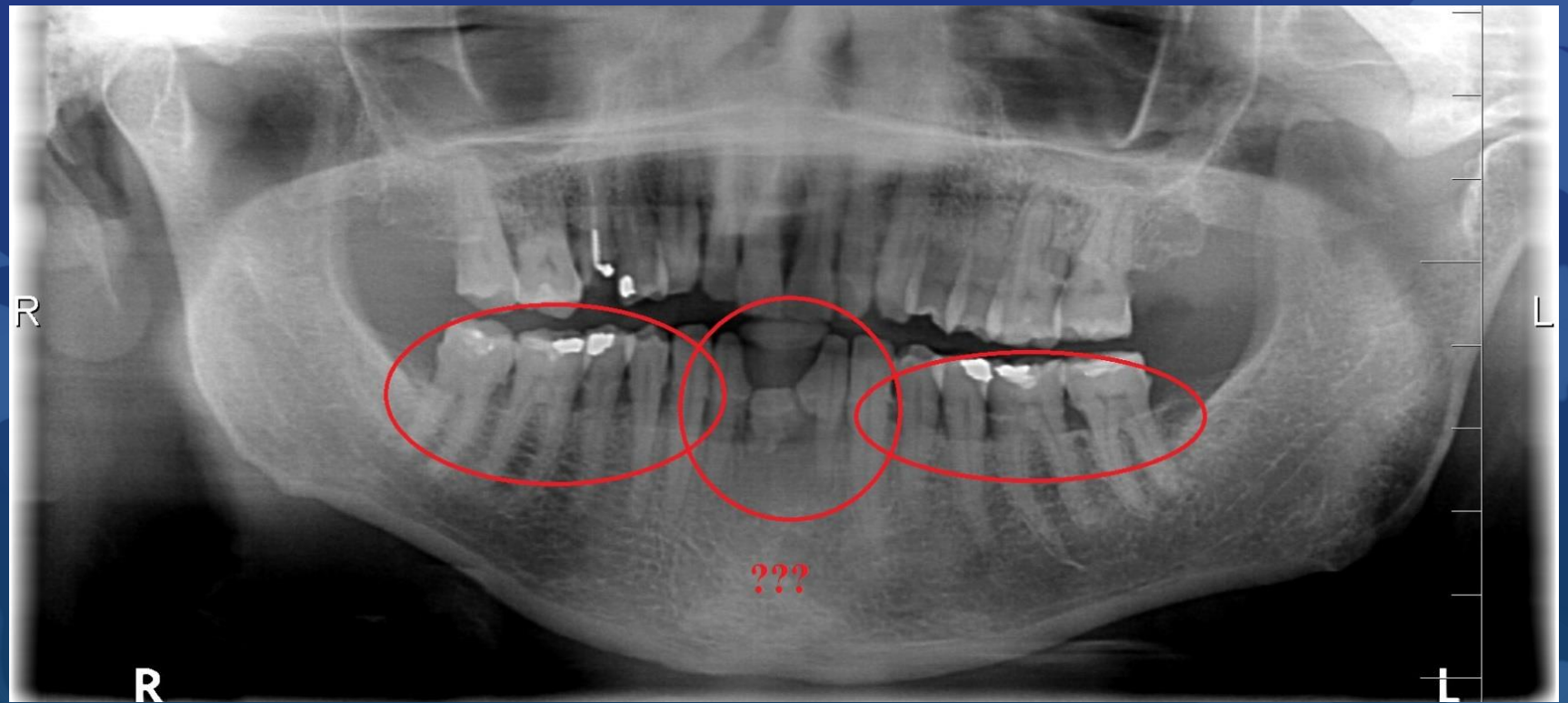
Dental stone



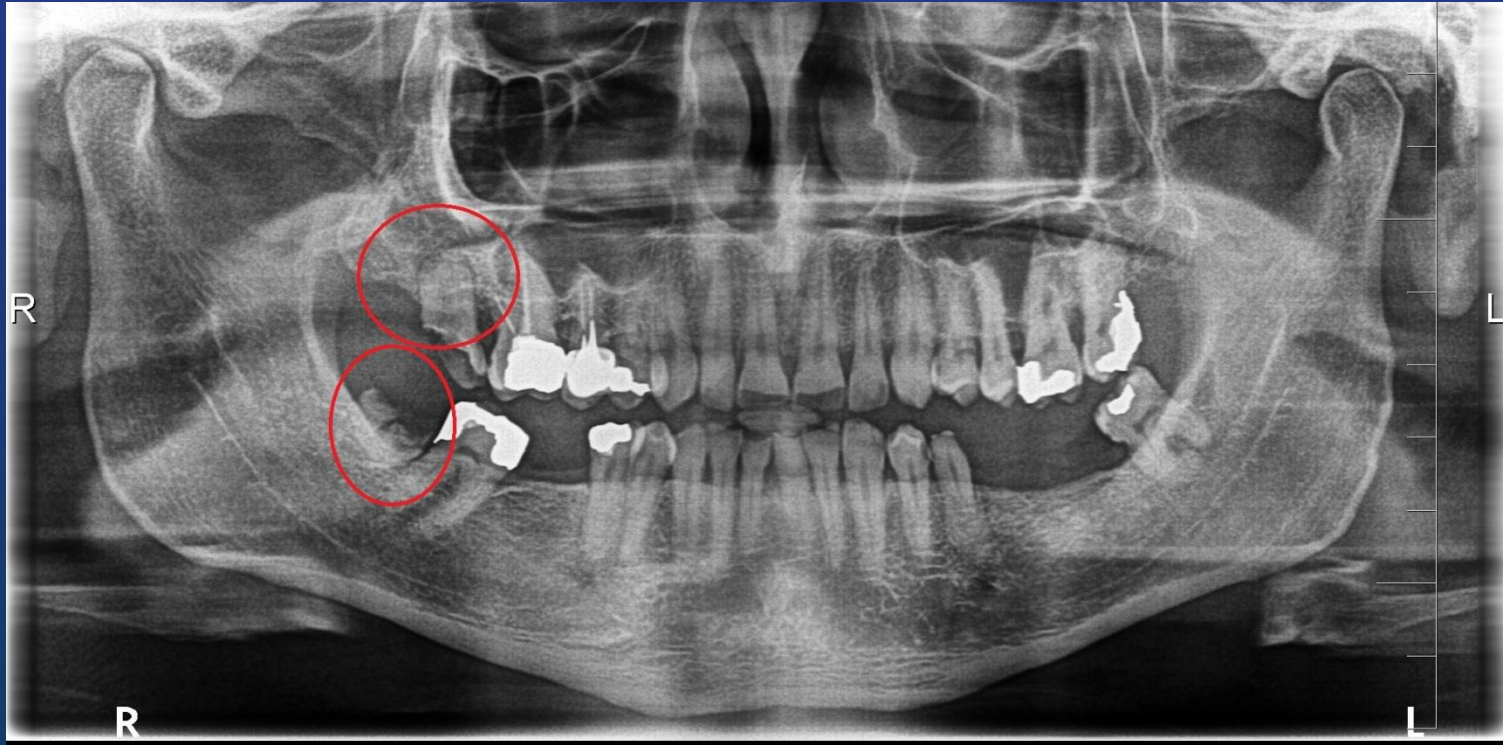
Dental stone and (guess what is between teeth 32 and 42?)



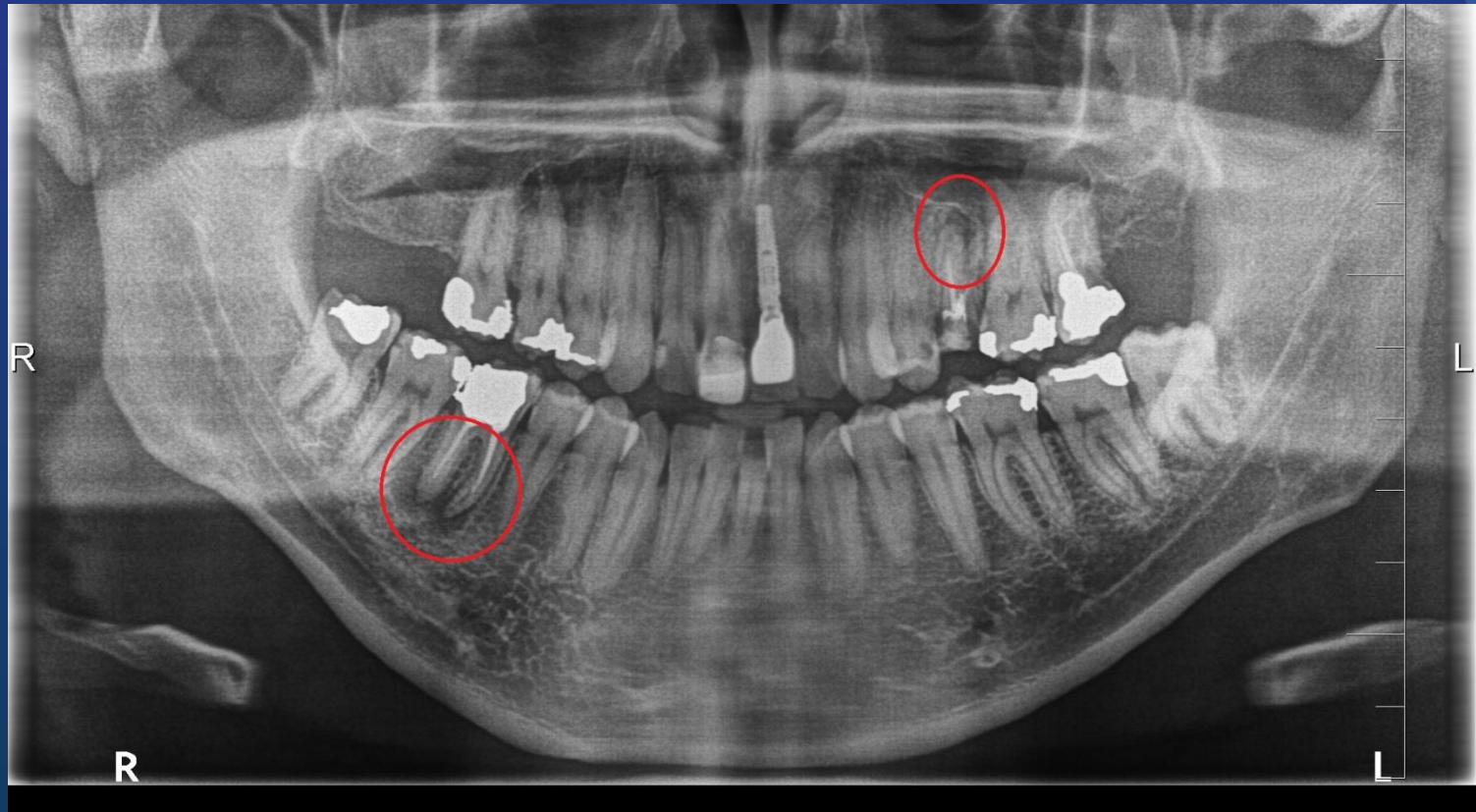
Dental stone and (dental stone between 32 and 42)



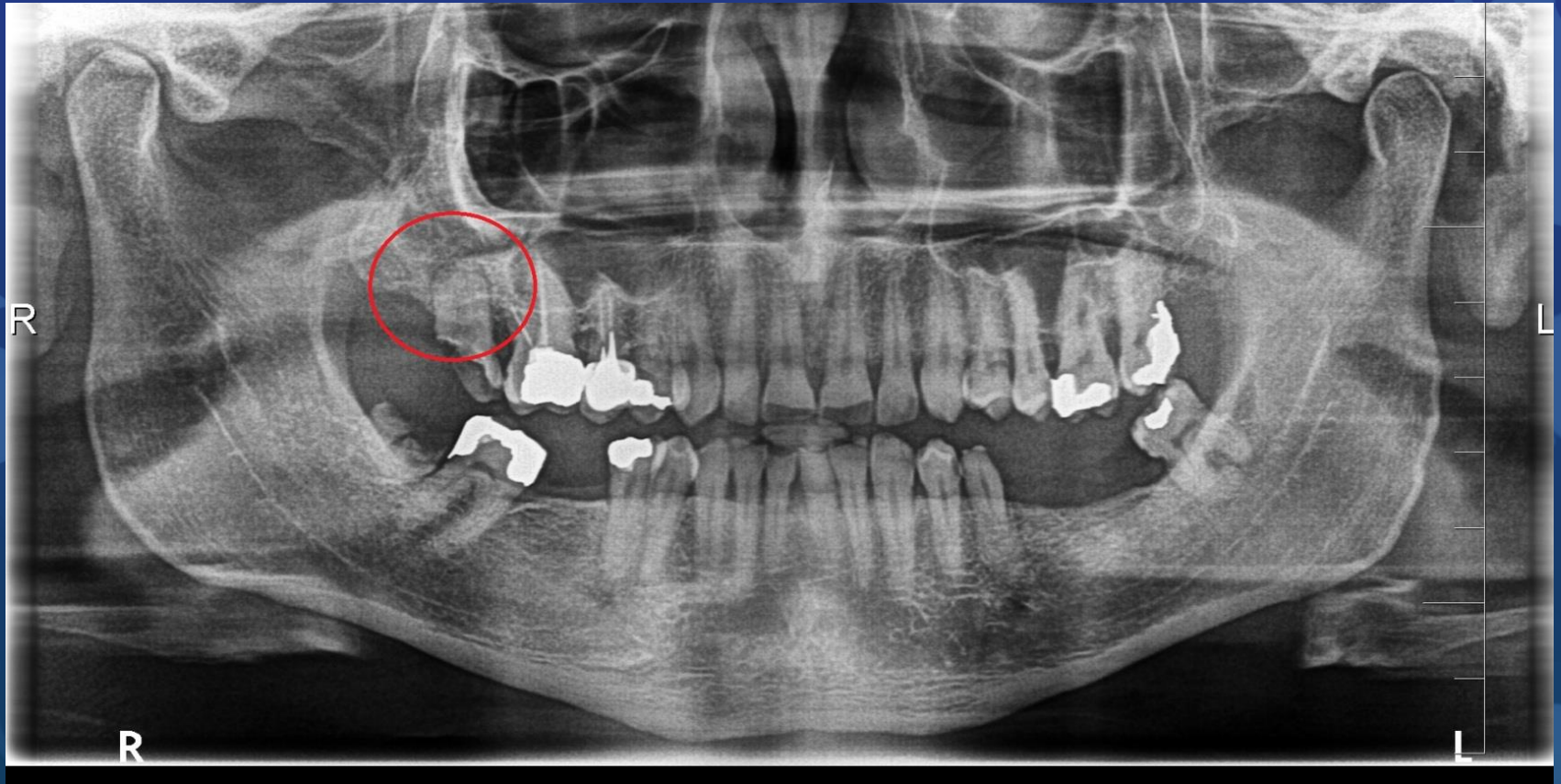
Radix



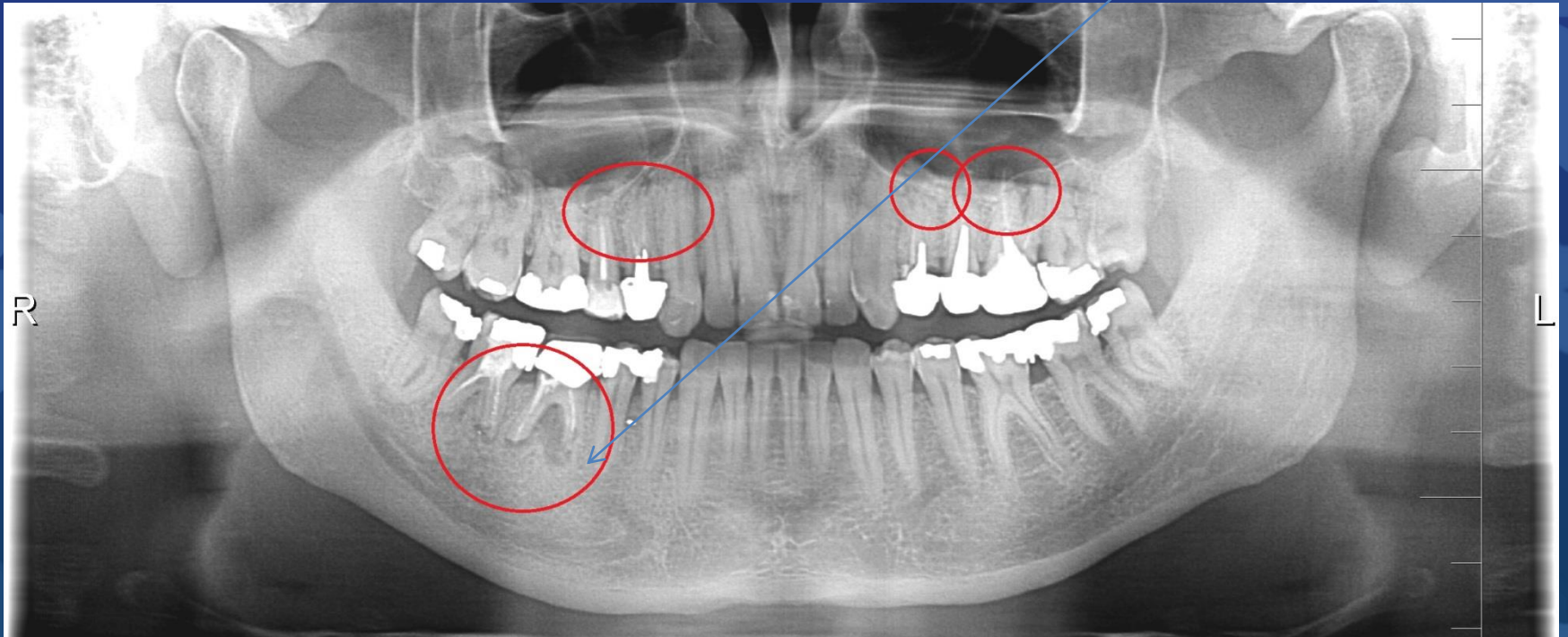
Periapical lesion



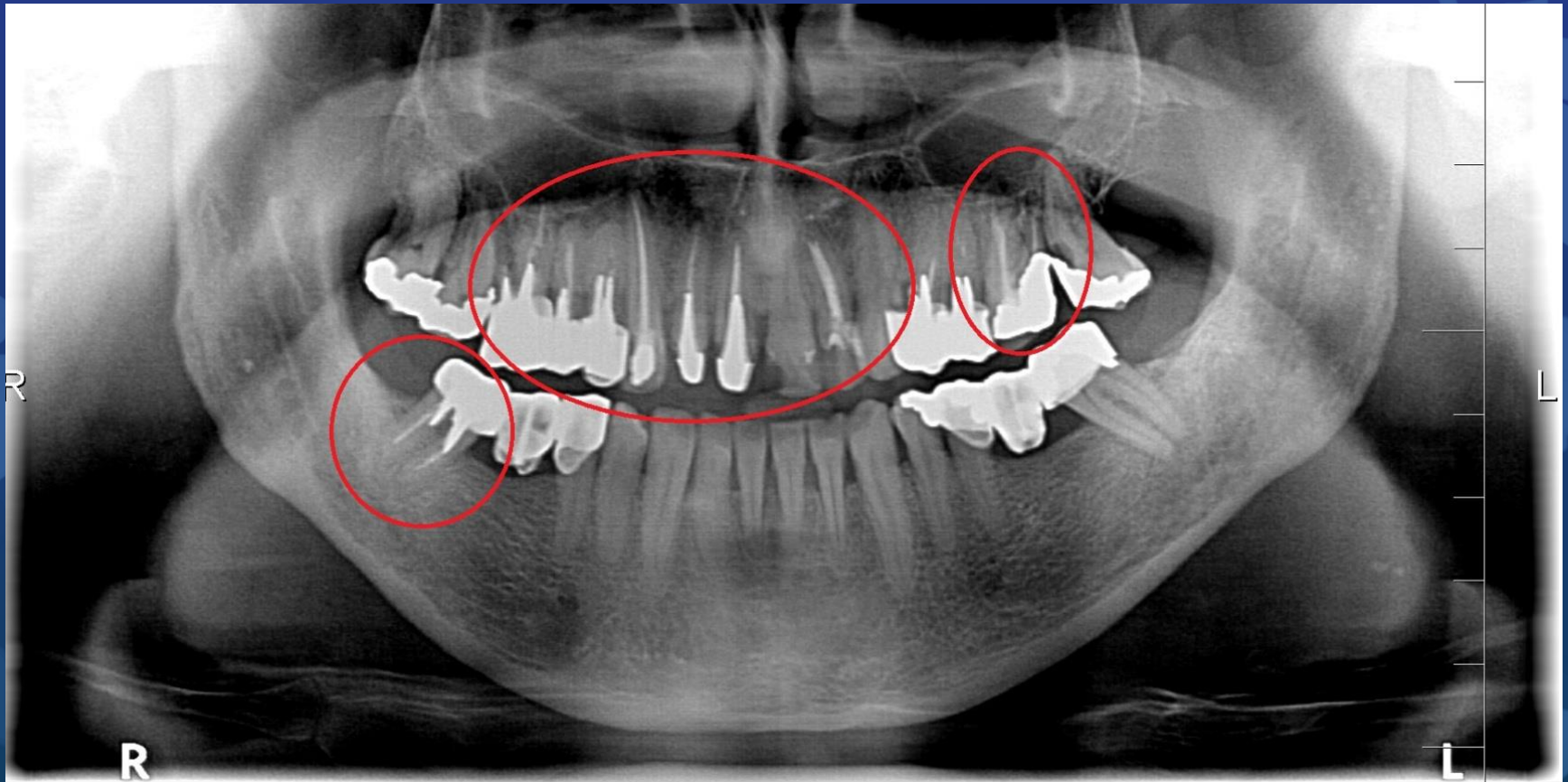
Periapical lesion



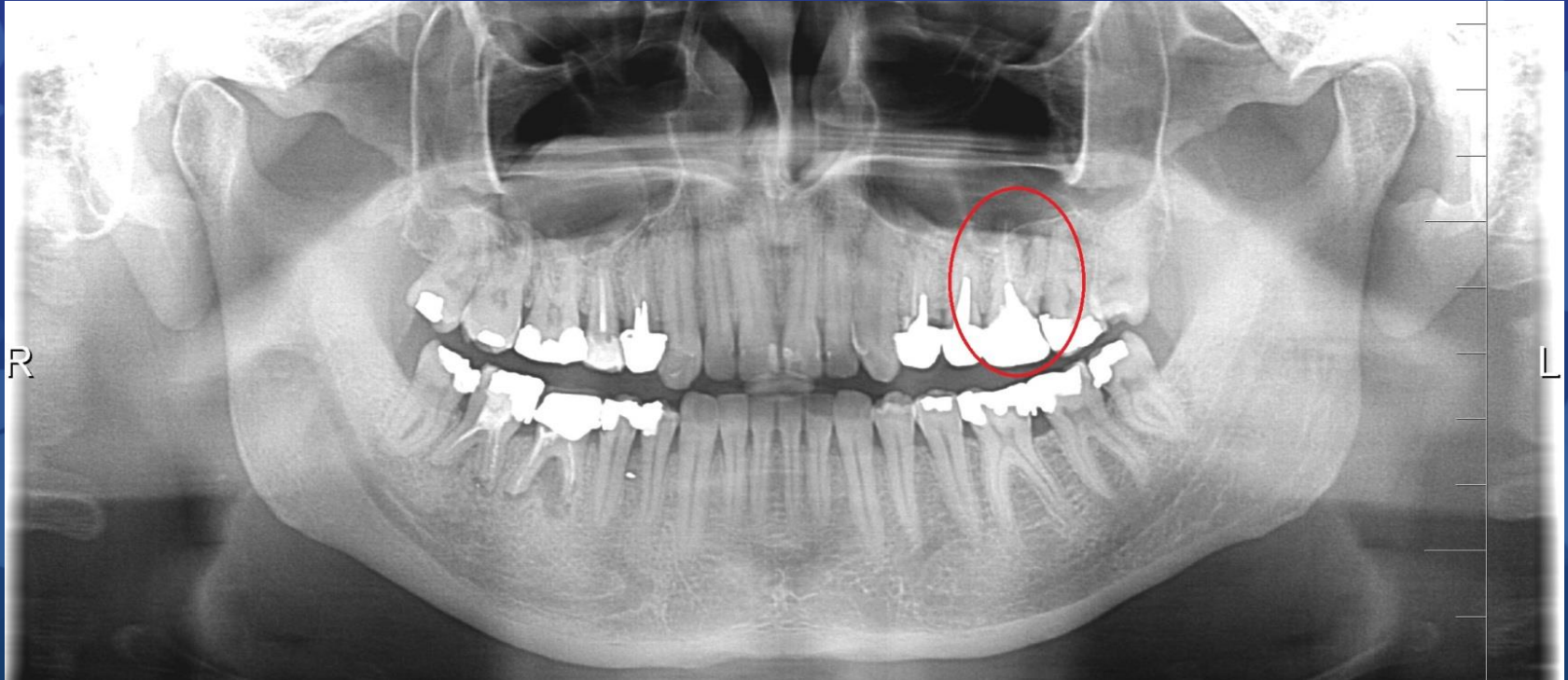
Periapical lesion – resorption of the apex



Teeth after endodontical treatment

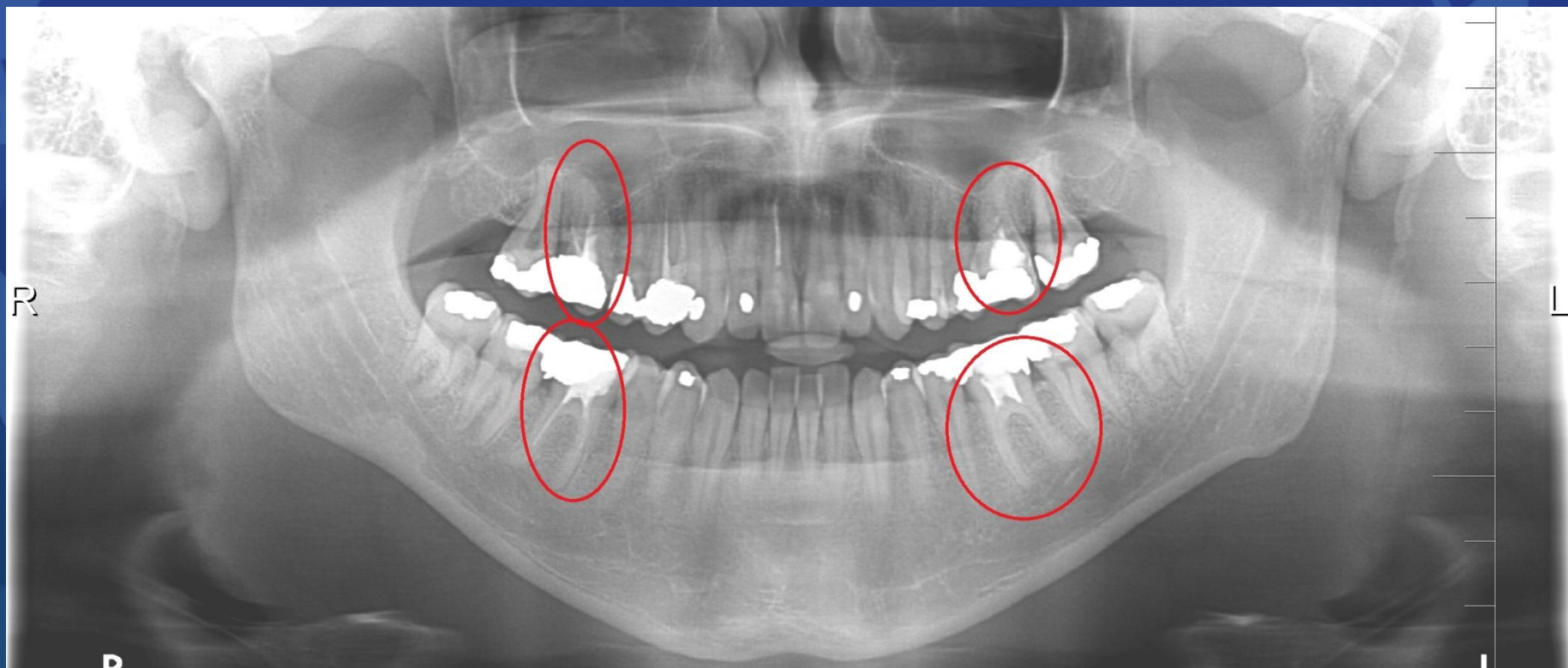


After endodontical treatment – number of root canals



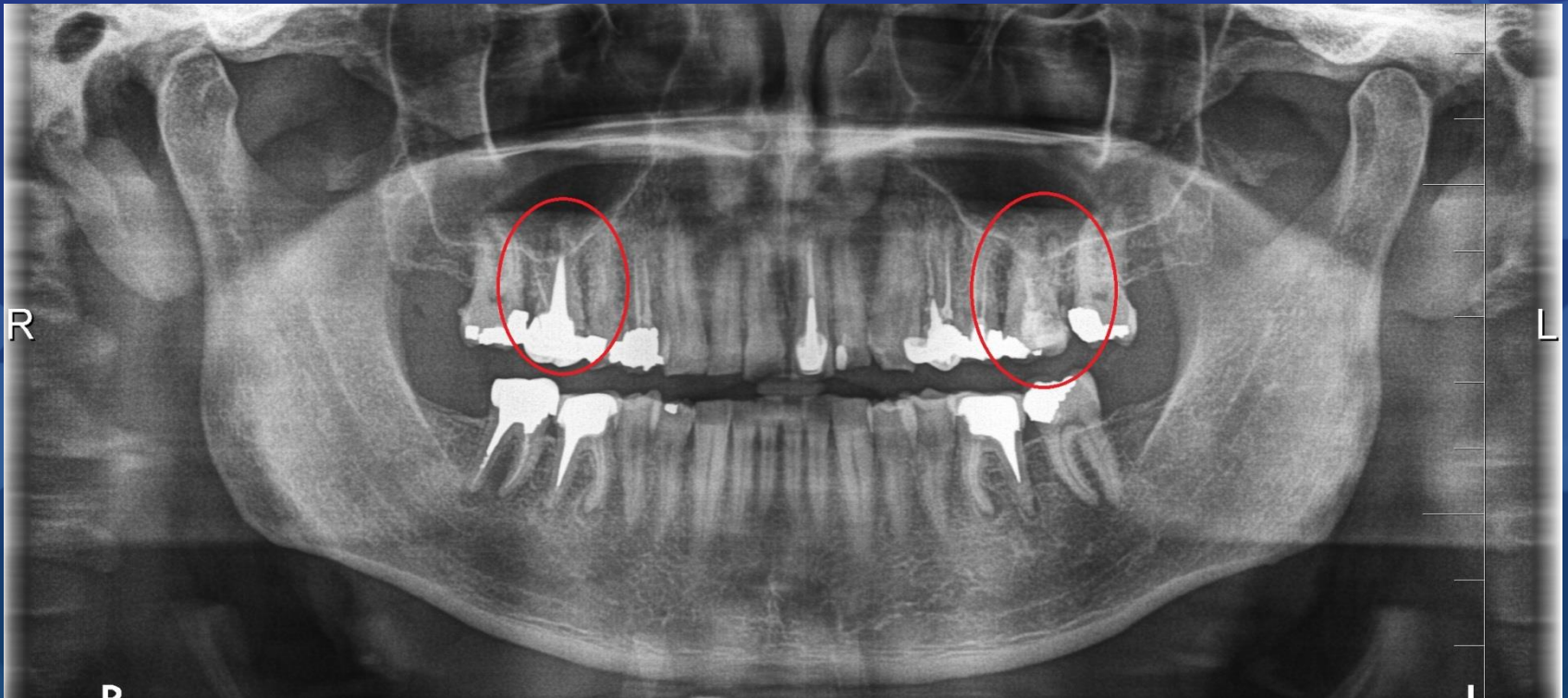
- Be careful!!** - First molar – at least 3 root canals
- Second molar – mostly at least 3 root canals (variability in number of RC)
- Third molar – variability (1-3 RC)

After Endo treatment – number of root canals and poor endodontical treatment



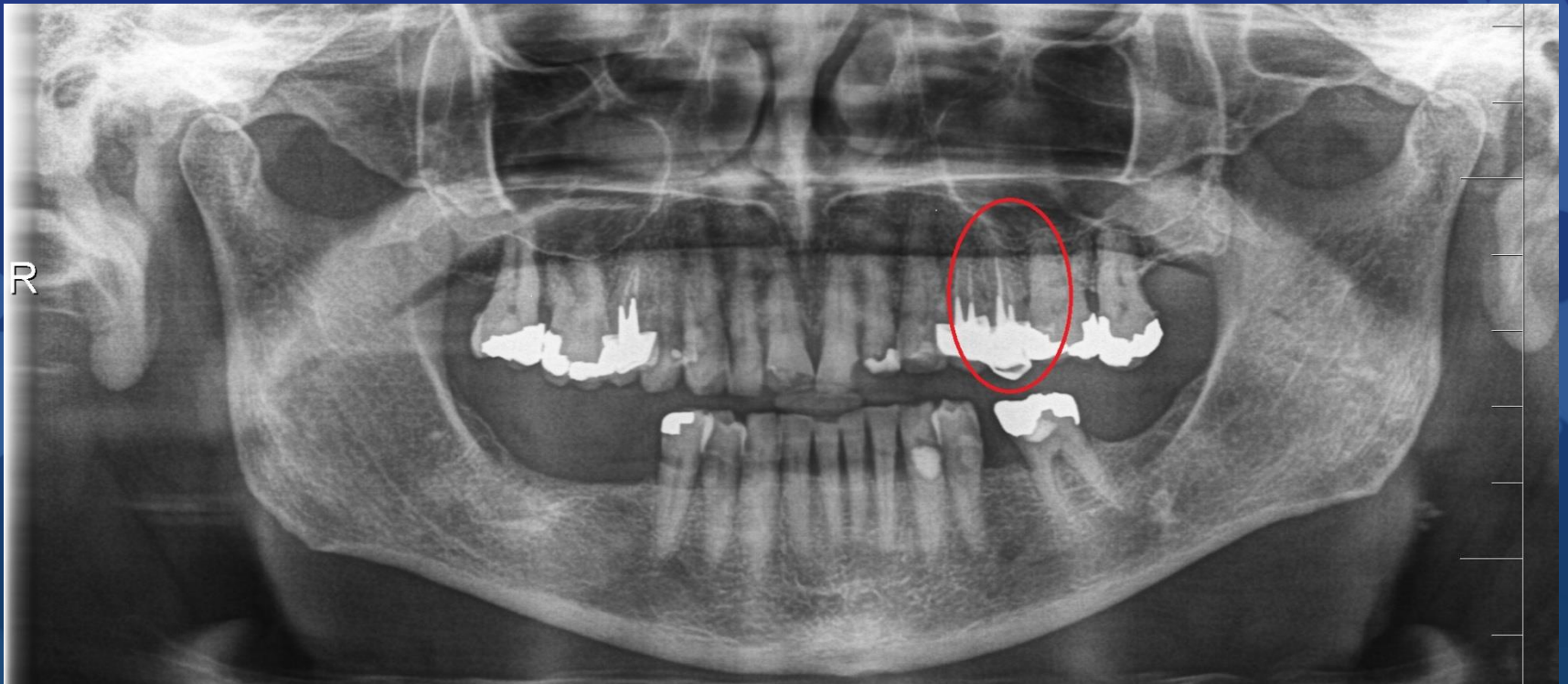
Wrong : all root canals are not found, filling of root canals doesn't reach the apex, filling of root canals is not homogenous

After Endo treat. – poor endo treatment



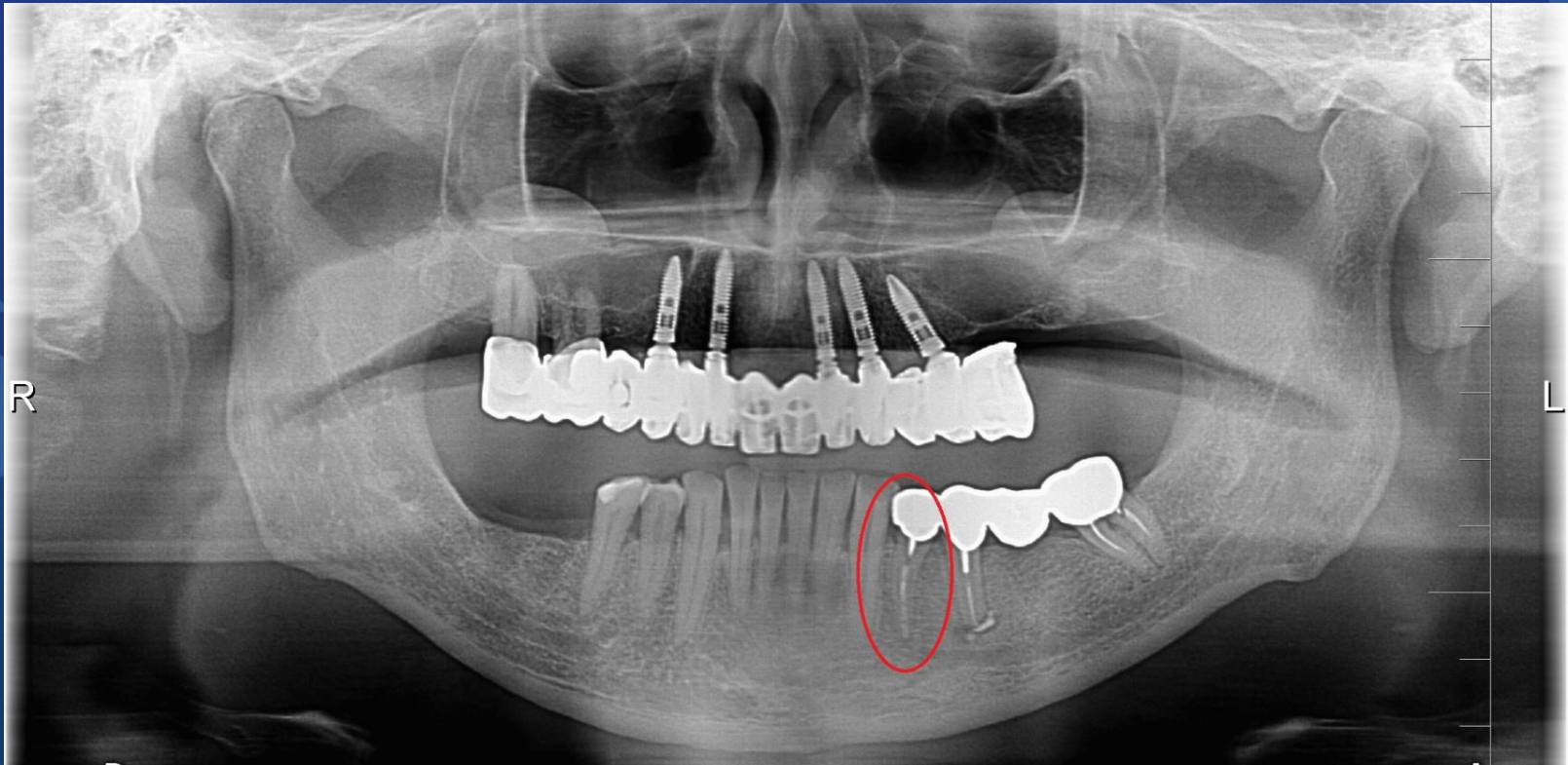
Wrong: all root canals are not found, filling in root canals doesn't reach the apex, periapical lesion, root inlay in tooth with poor endo treatment

After endo tr. – number of root canals

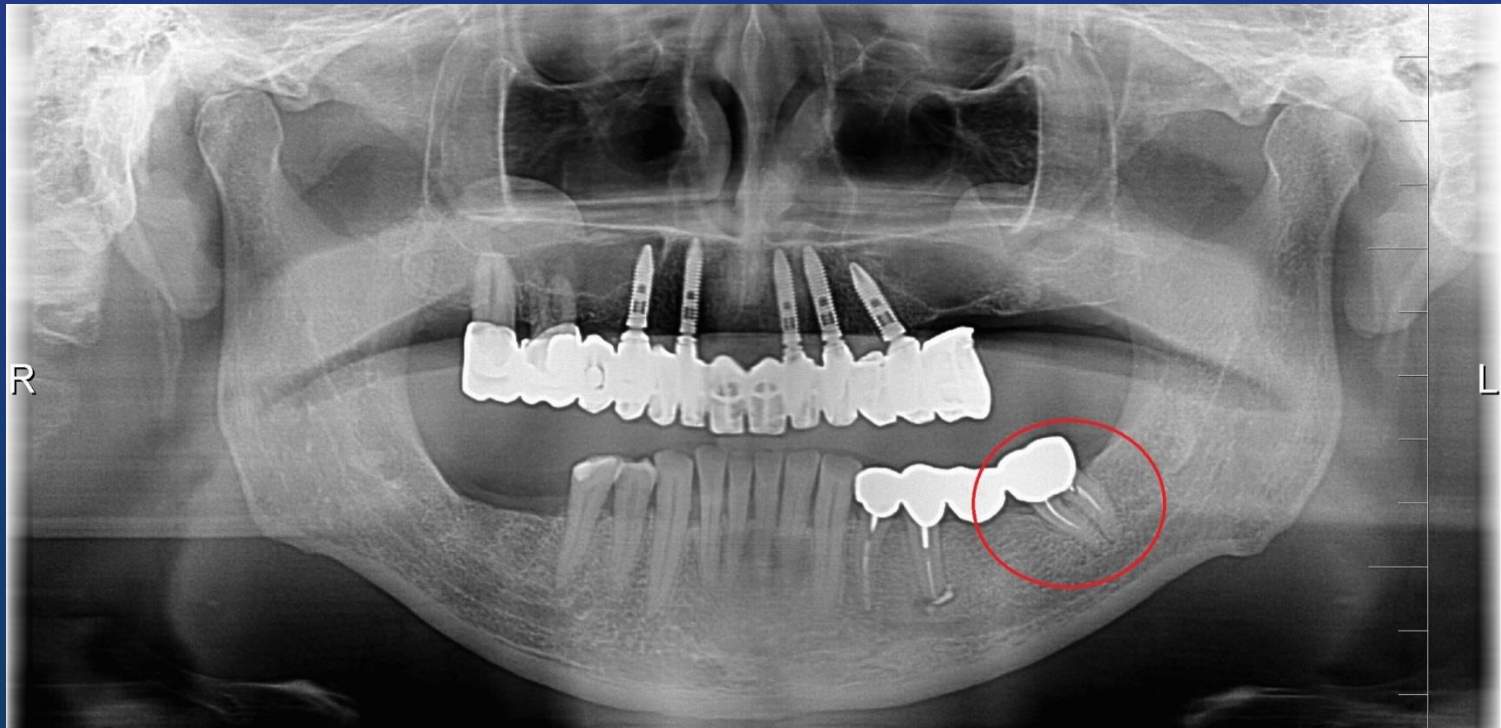


Be careful!!!: mostly 1-2 root canals, !first upper premolars can have 3 root canals, 2 buccally and 1 palatally

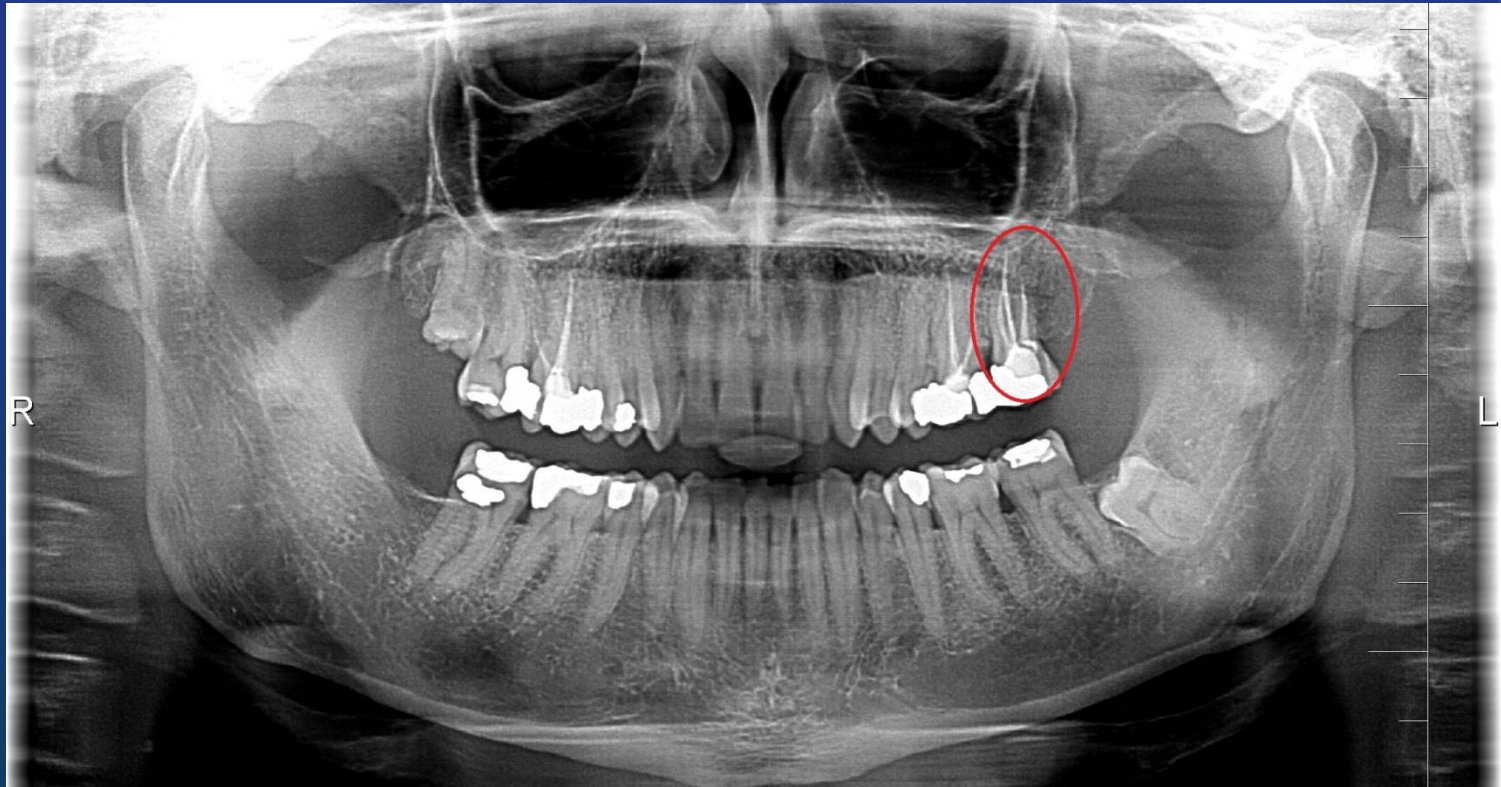
After endo treatment – root canal filling is not homogenous



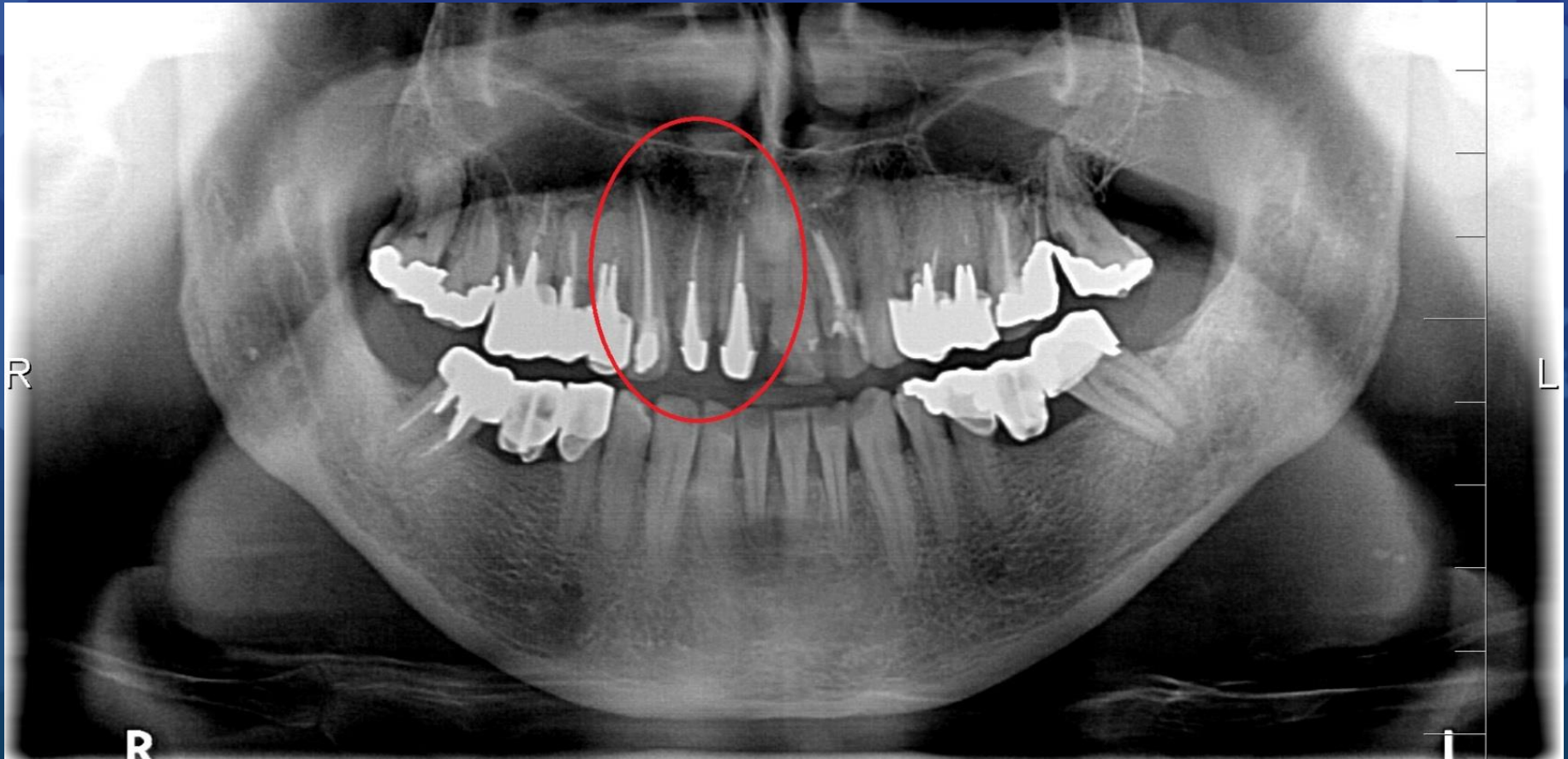
After endo treatment – root canal filling doesn't reach the apex



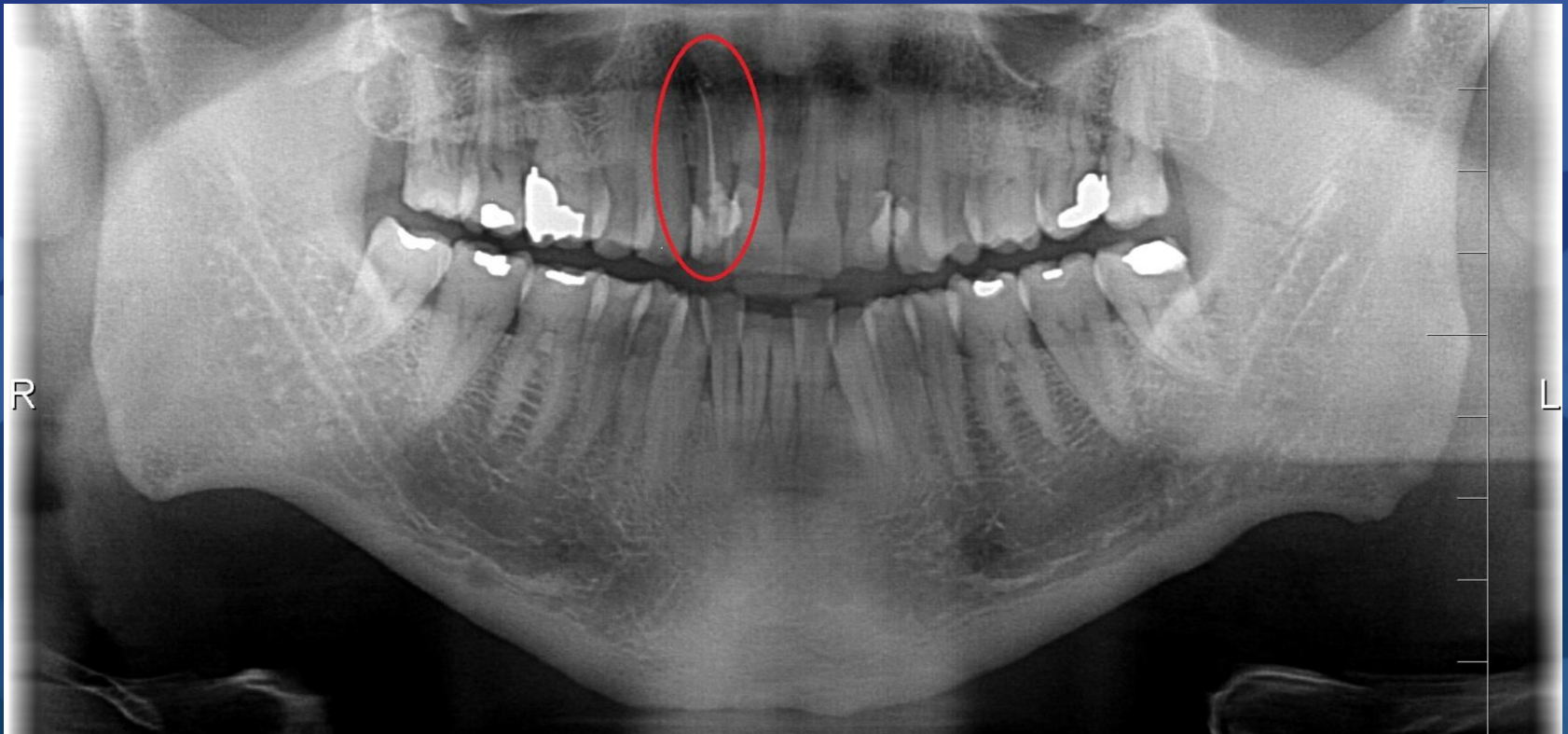
After Endo treatment – root canal filling is homogenous



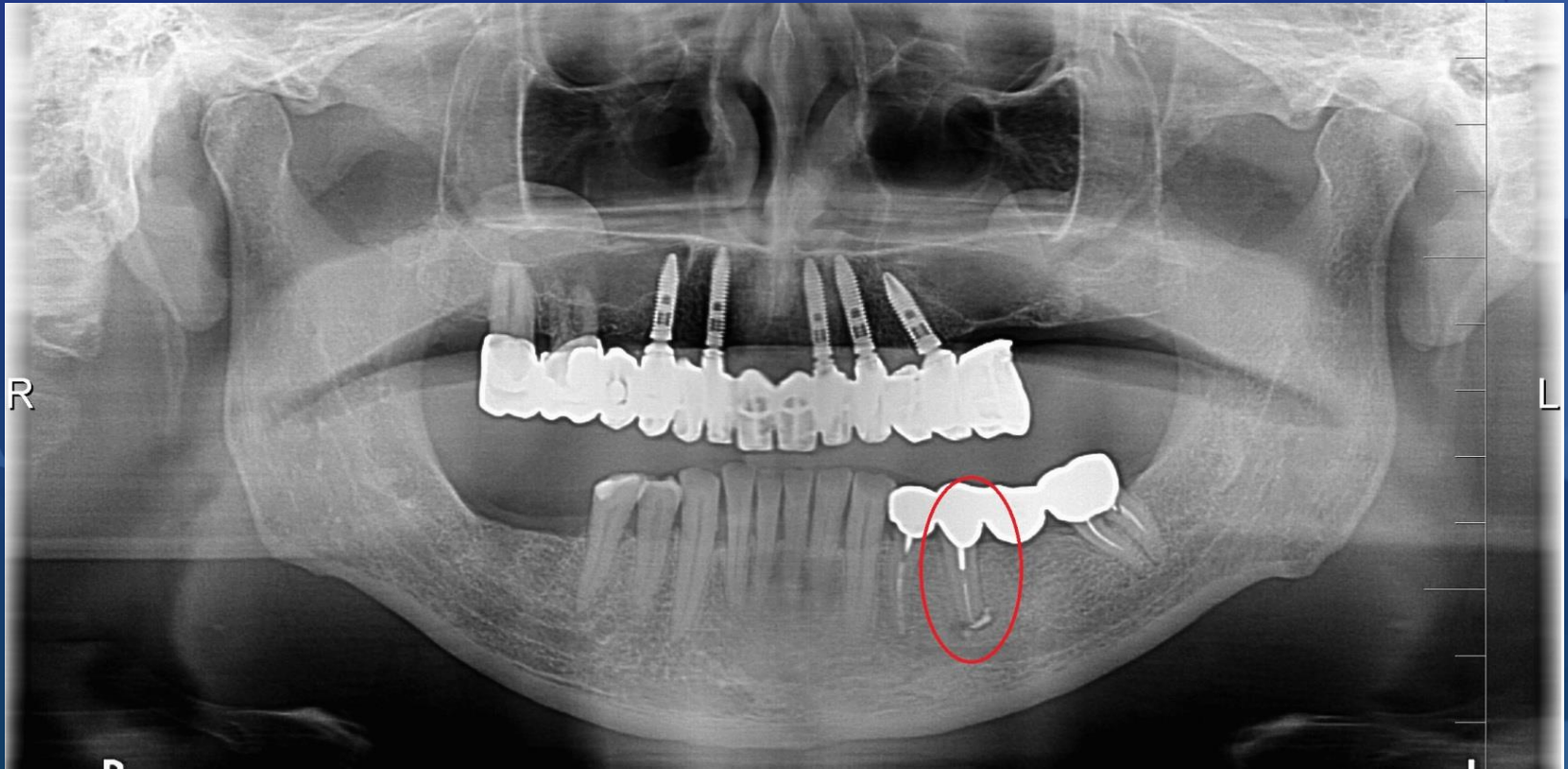
After Endo treatment – root canal filling is homogenous



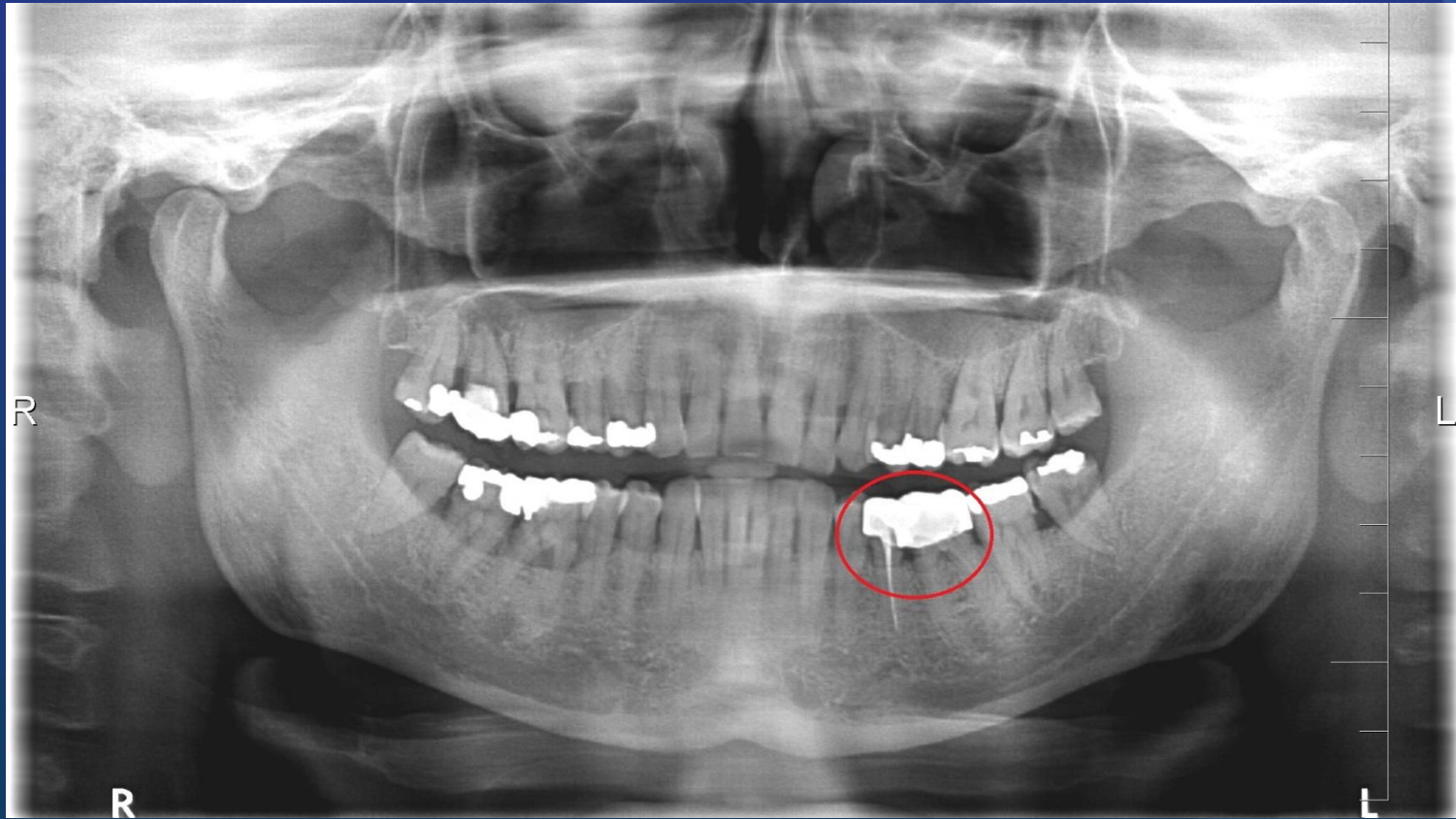
After endo treatment – root canal filling is over the apex



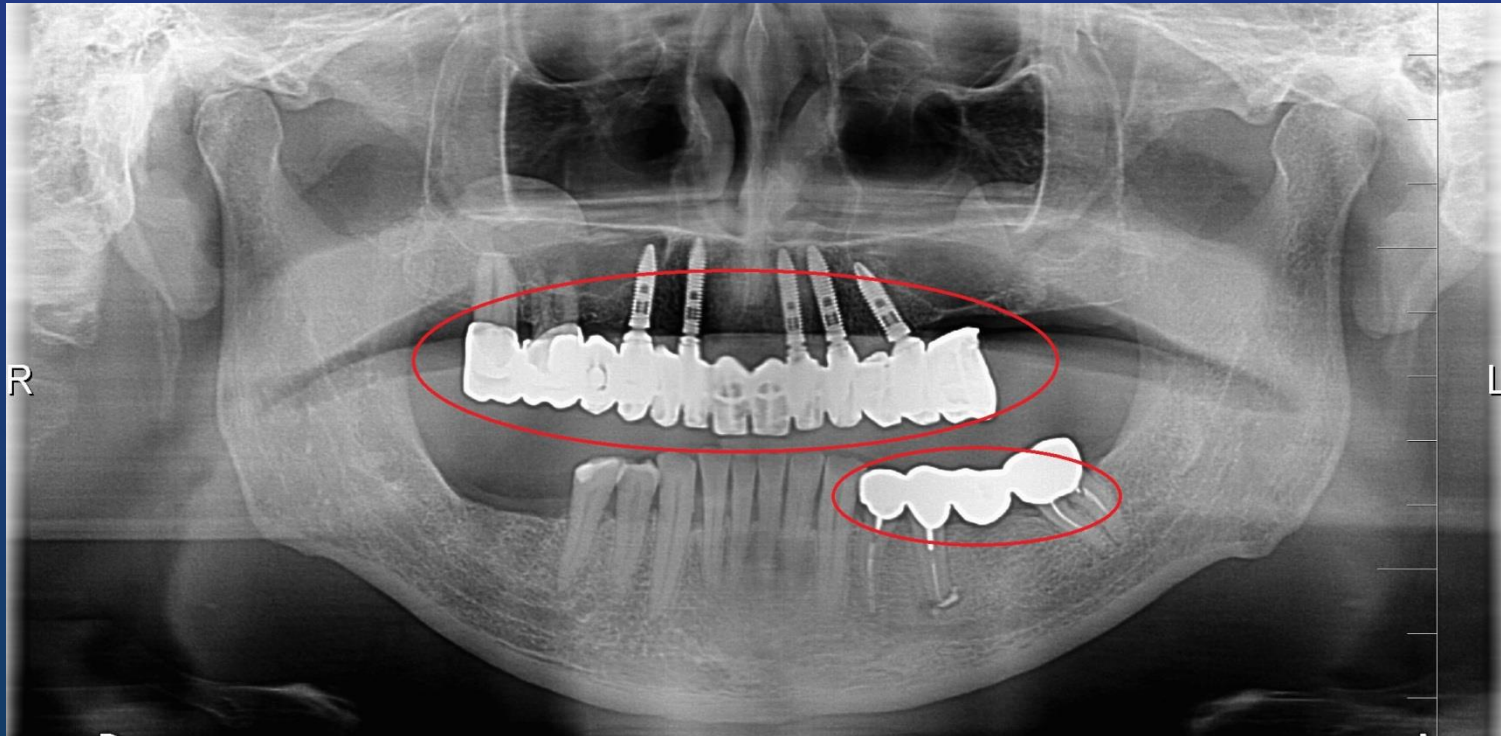
After endo treatment – root canal filling is over the apex



Crown

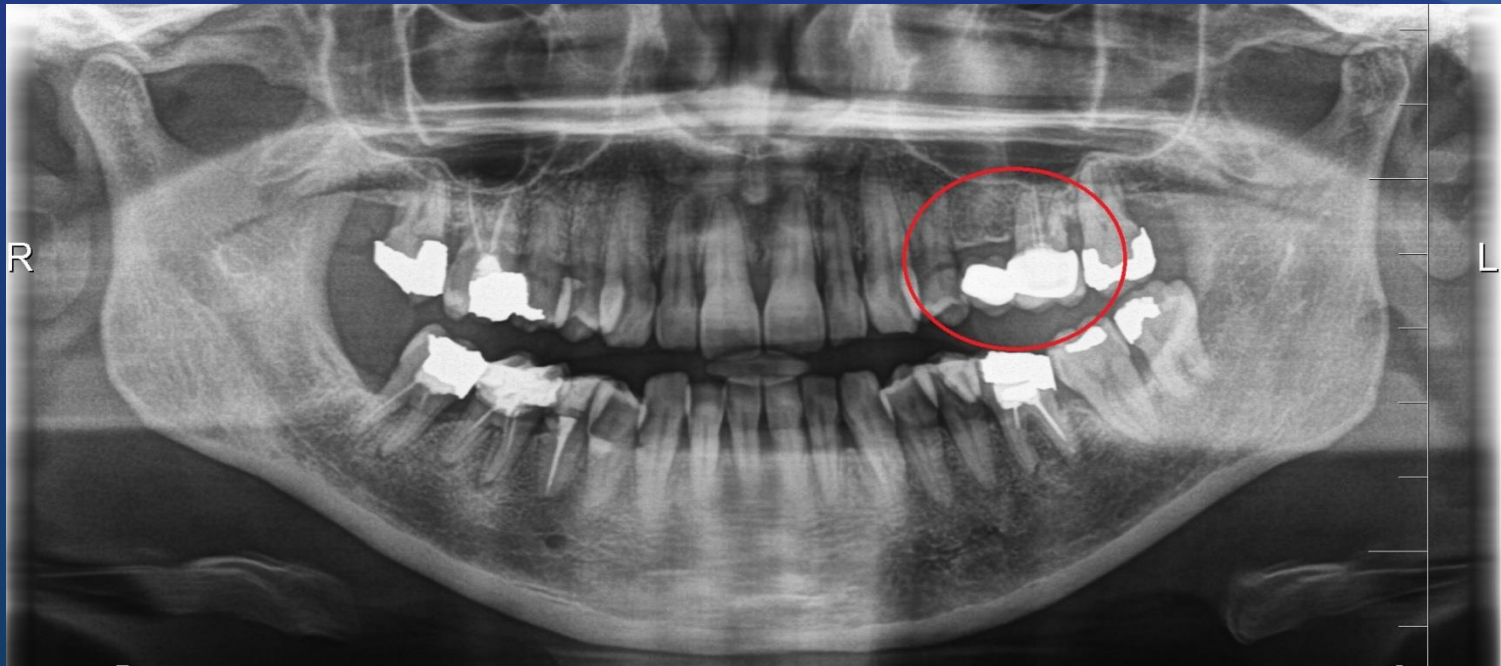


Full – metal crown/ Faset crown



On X-ray: metal replace the whole crown up to occlusion/incisal edge

Metal – ceramic crown



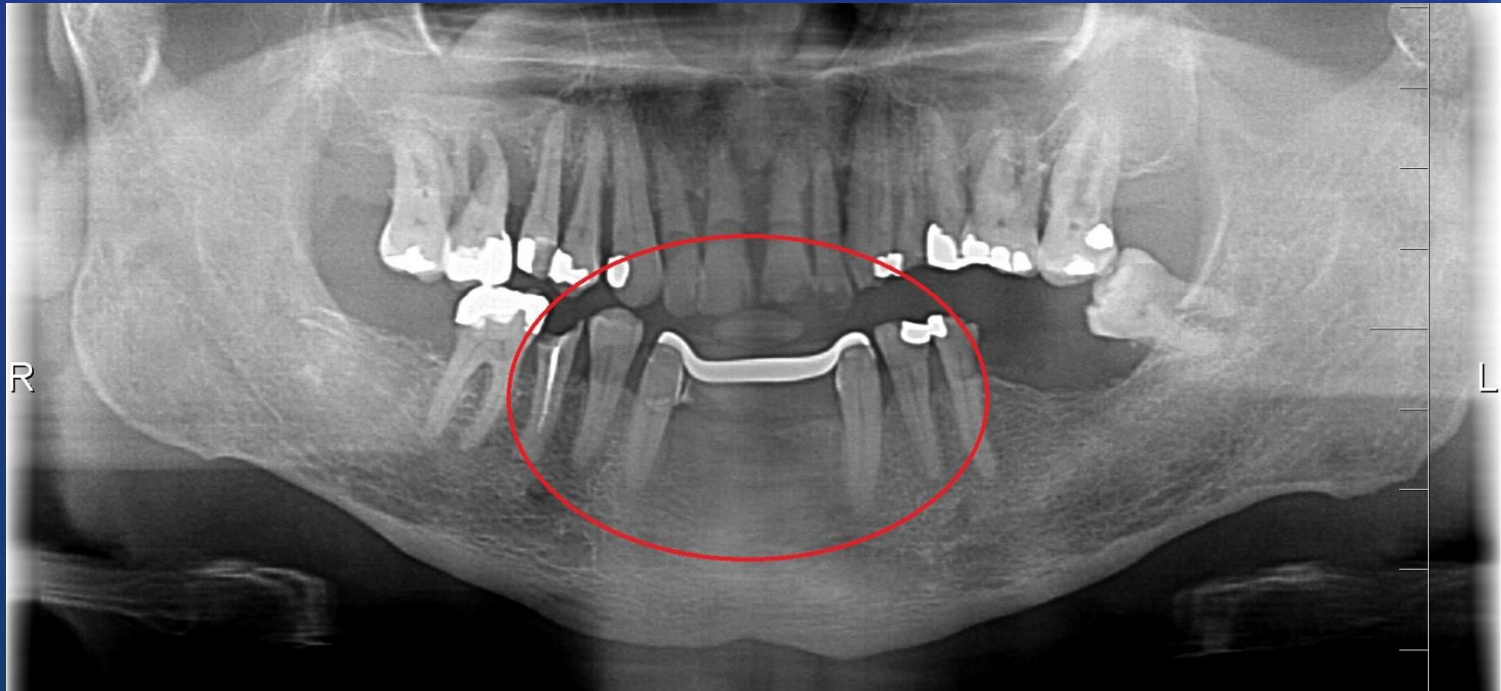
On X-ray everytime 2 parts: metal construction of crown (white colour) and ceramic layer reaching the occlusion/ incisal edge (gray-white colour)

Full – ceramic crown



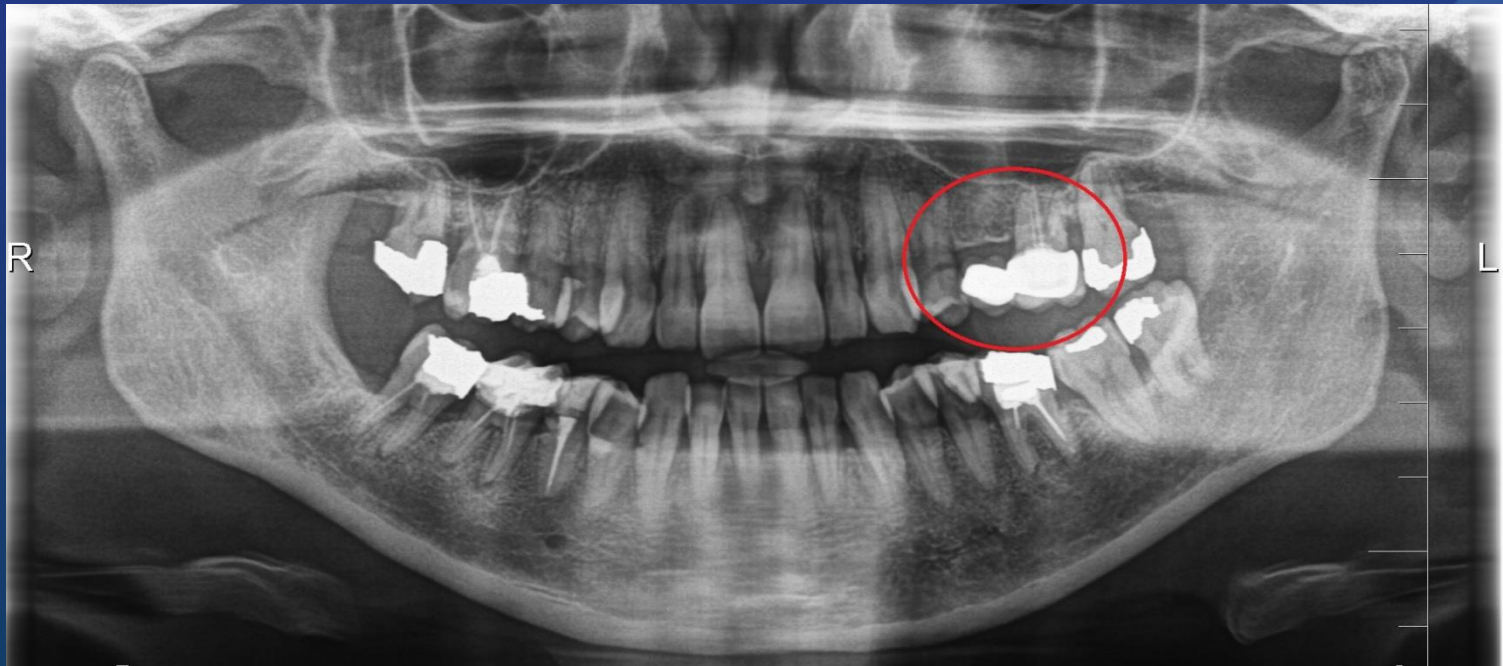
On X-ray: ceramic replace the whole crown (grey colour, on X-ray is the colour similar to the tooth colour)

Resin crown

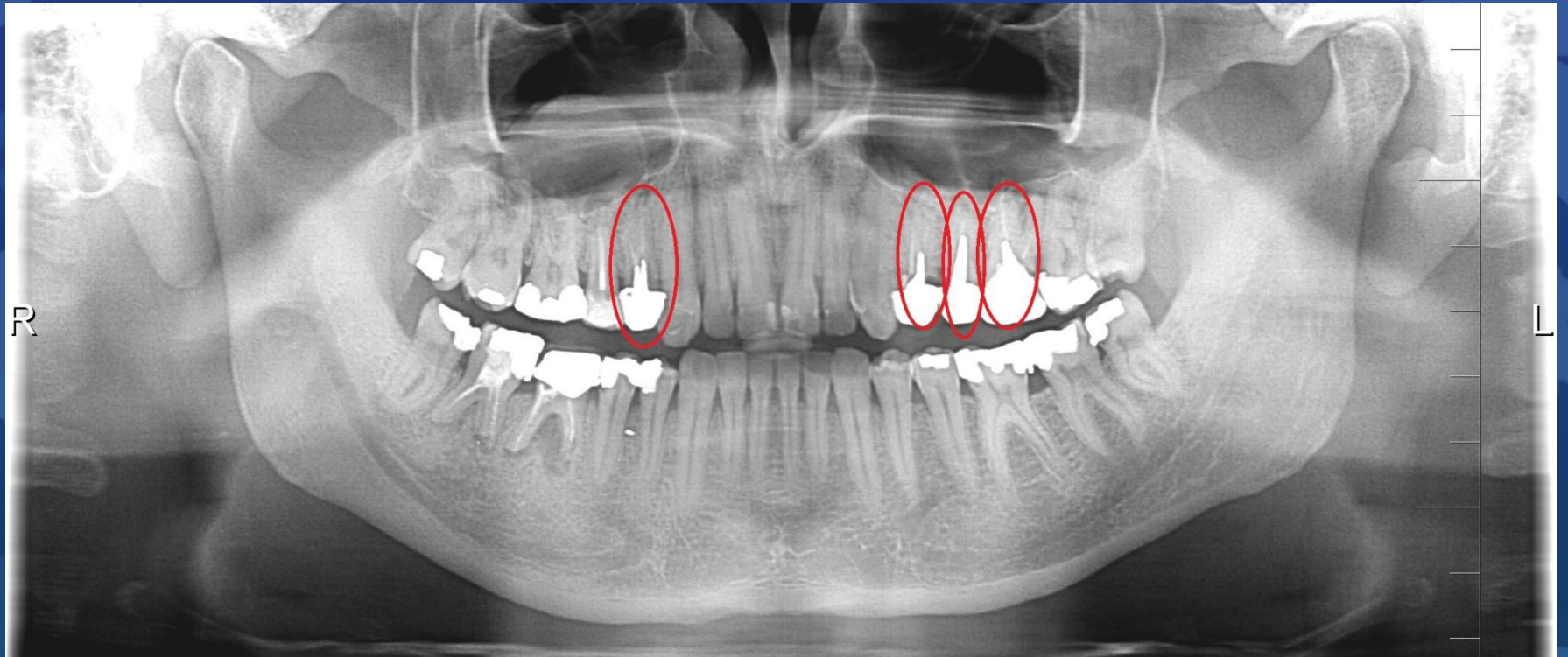


On X-ray: almost invisible. If you see on X-ray root inlay or tooth after preparation for the crown and it seems to be without a crown **EVERYTIME!!!** check the X-ray , if resin crown is not there. (on X-ray it is a thin gray transparent line making the crown outline)

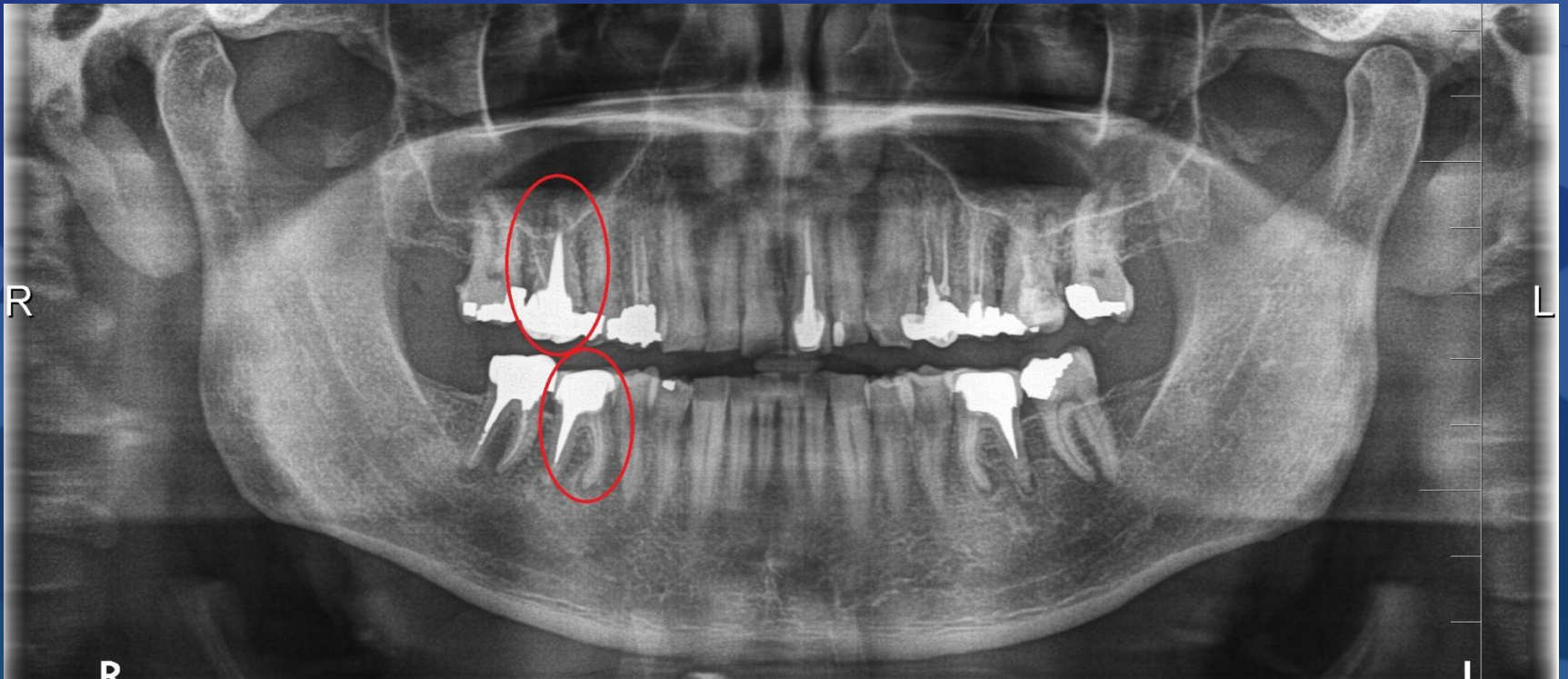
Dnes pendens



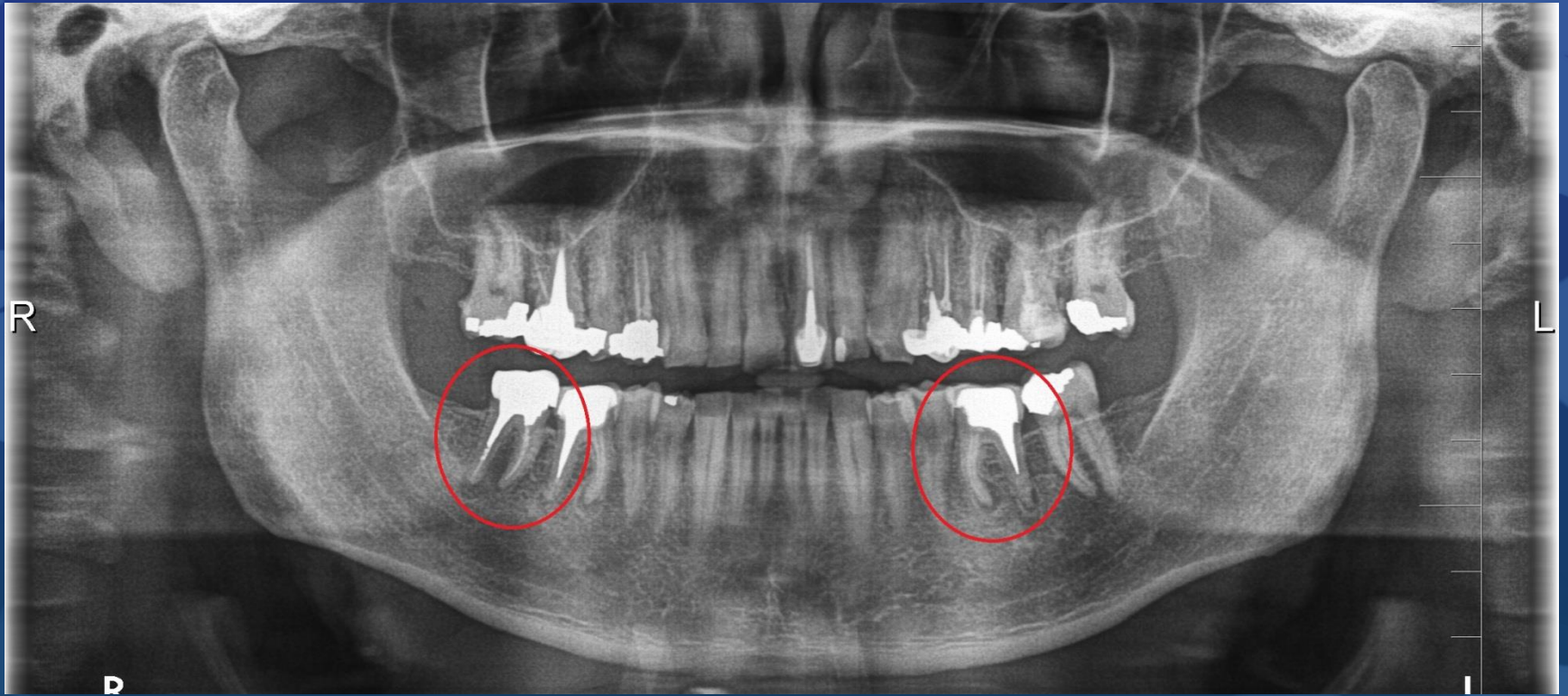
Root canal inlay – short, unsatisfactory



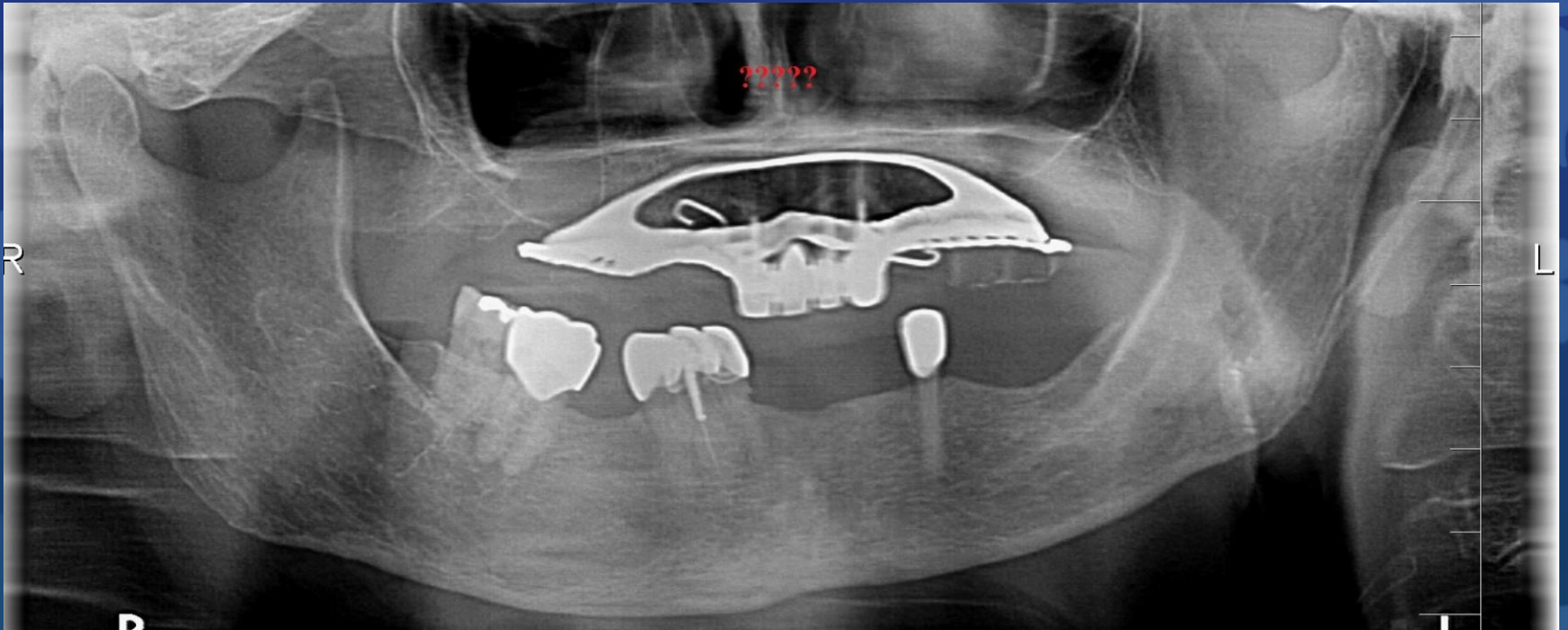
Root canal inlay - suitable



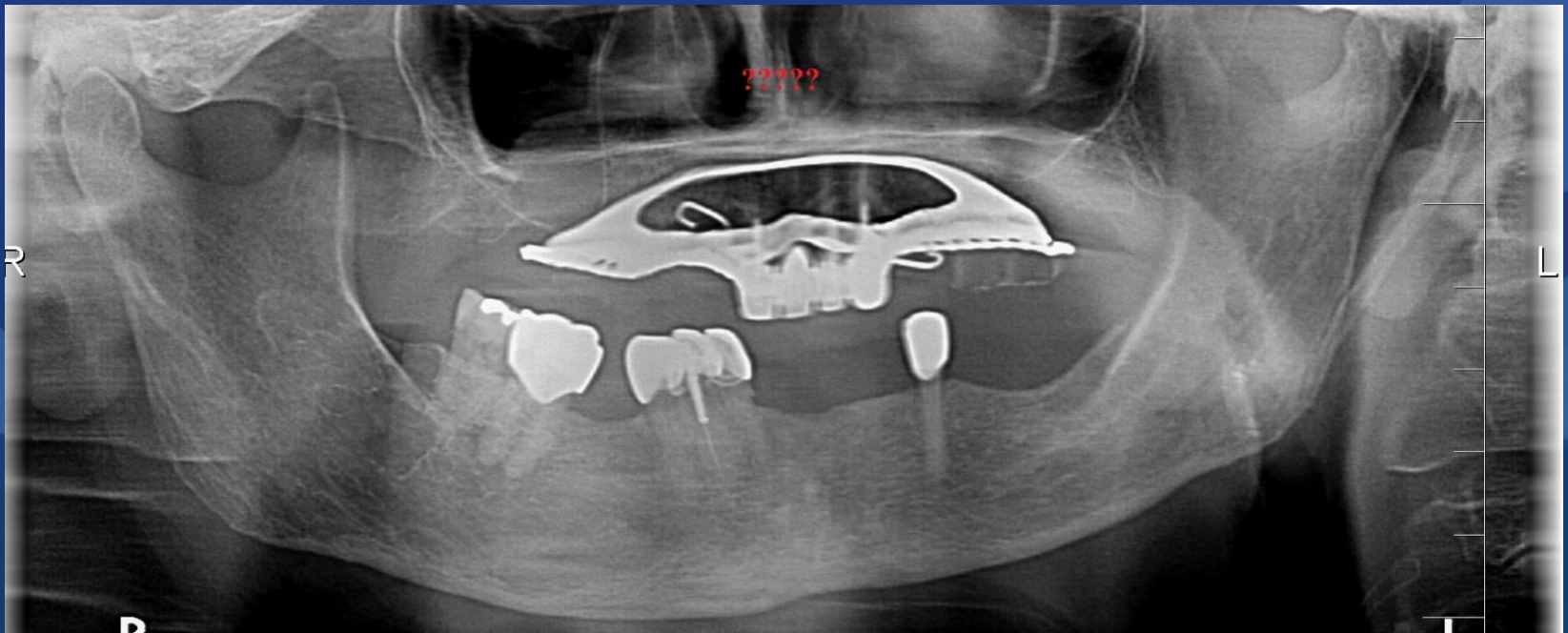
Root canal inlay 1:1



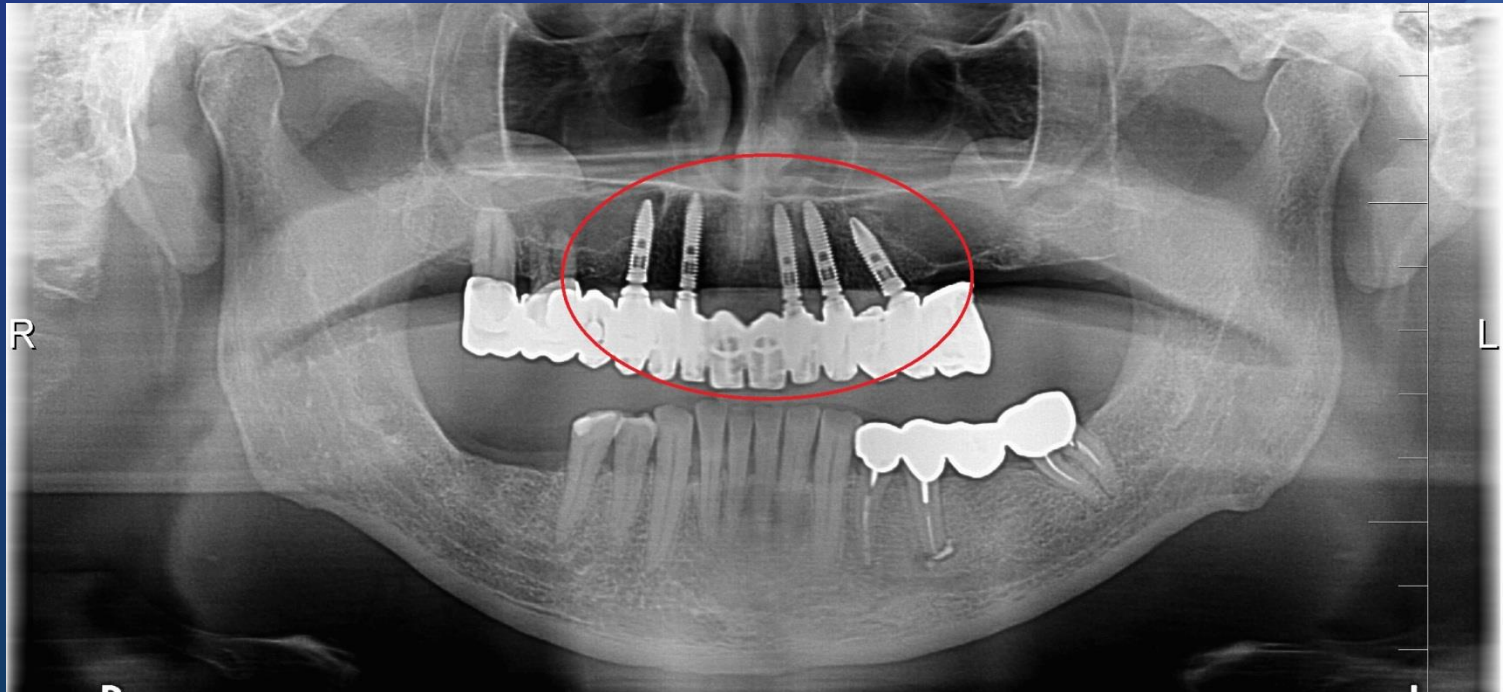
What's on the picture??



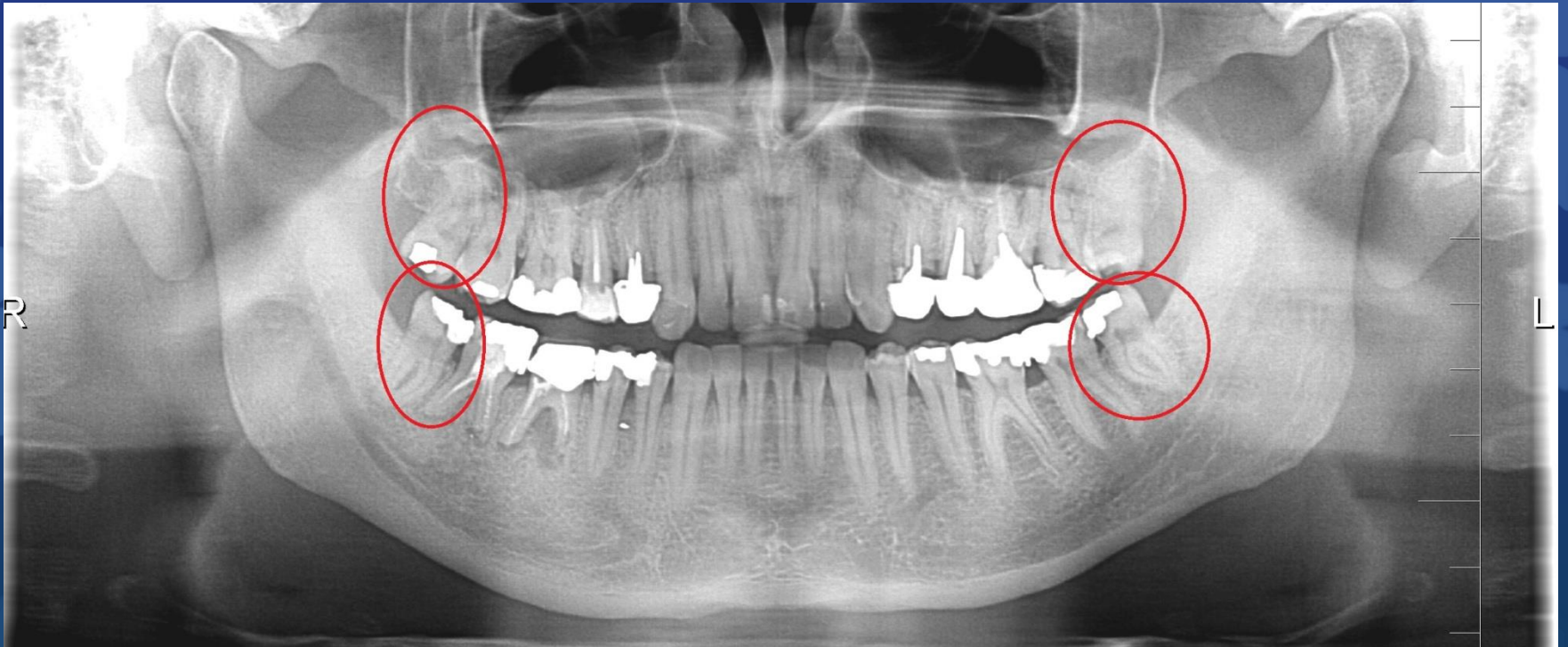
Partial removable denture



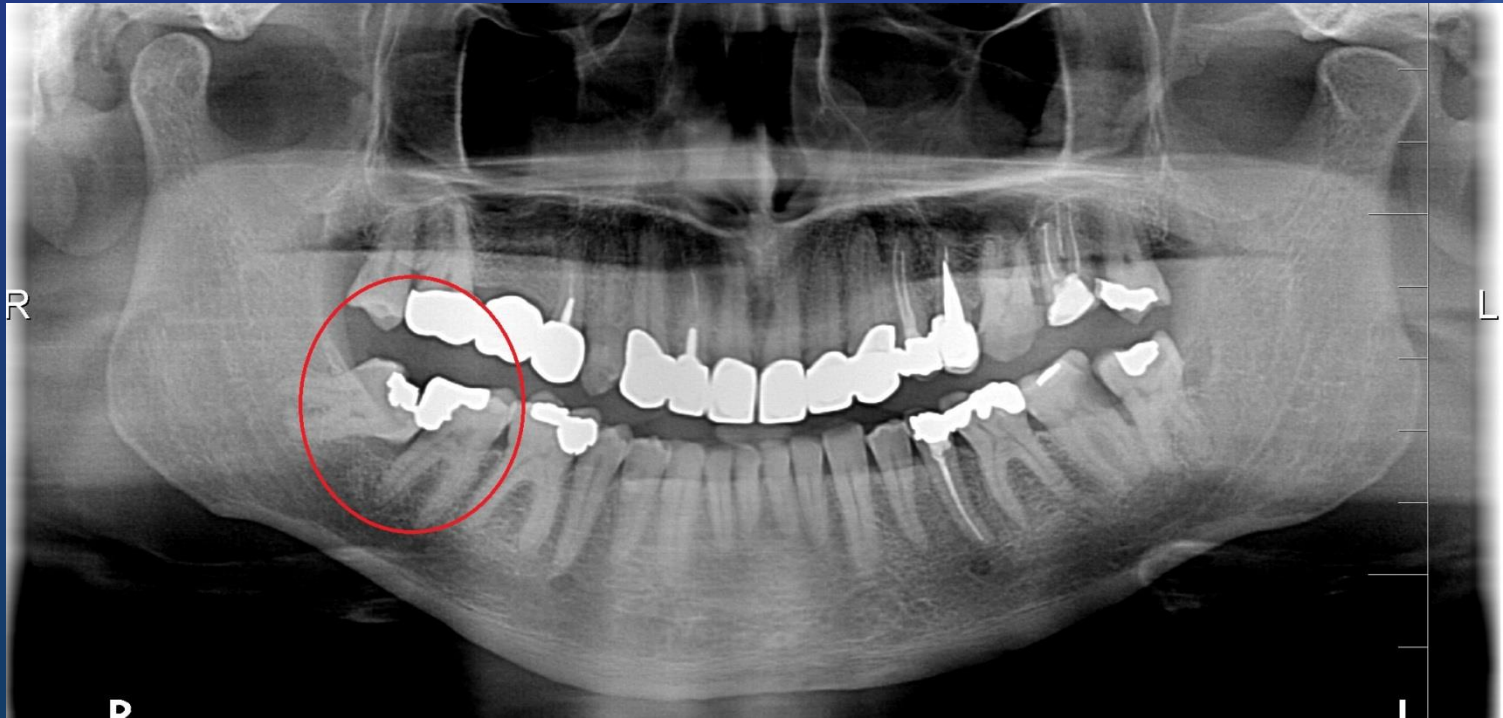
Implant



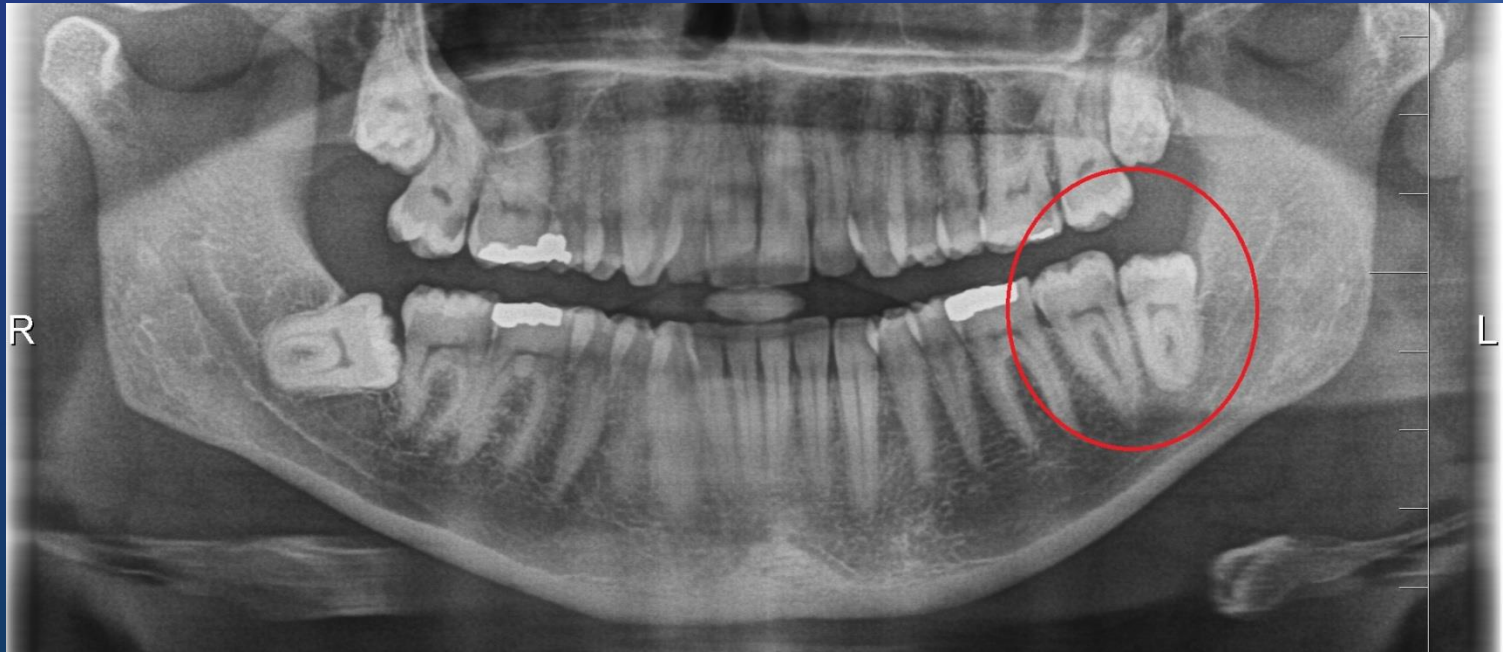
Erupted third molar



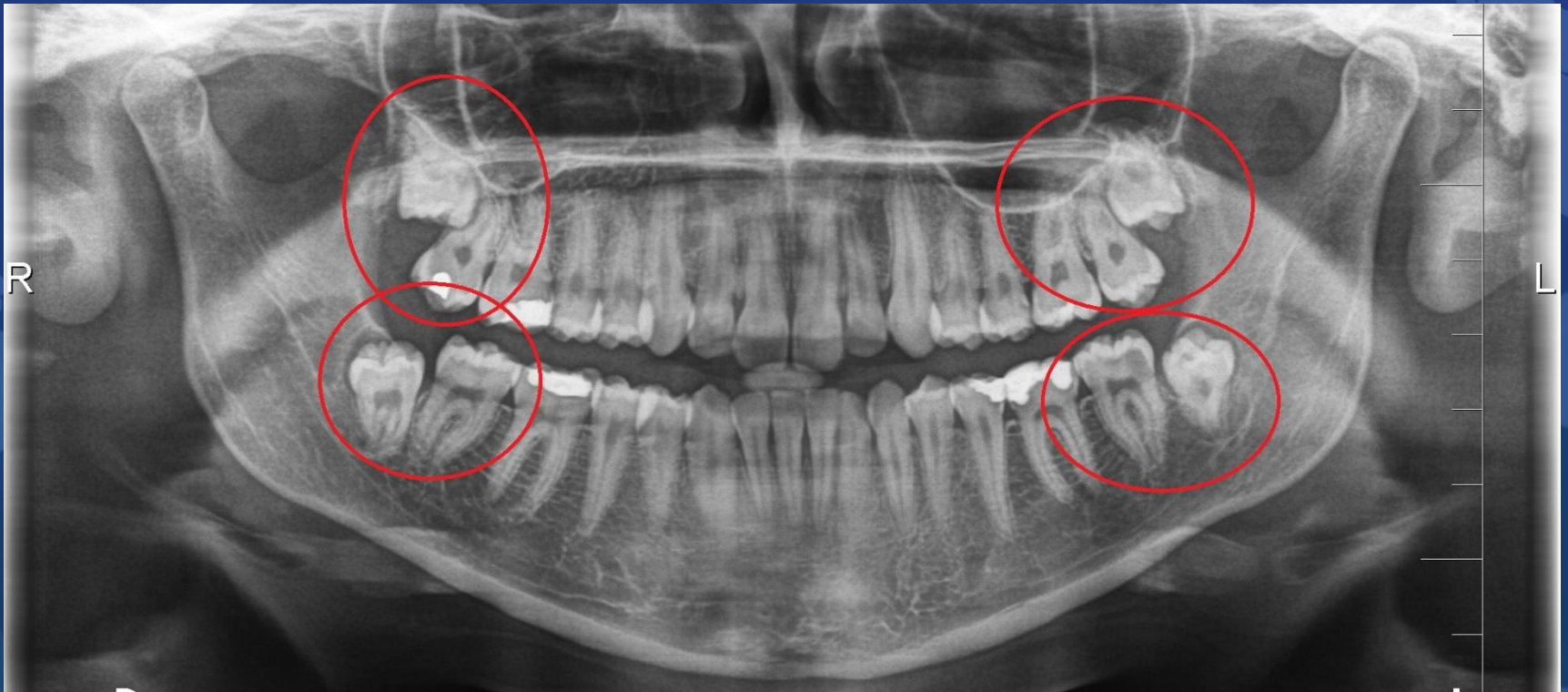
Erupted third molar



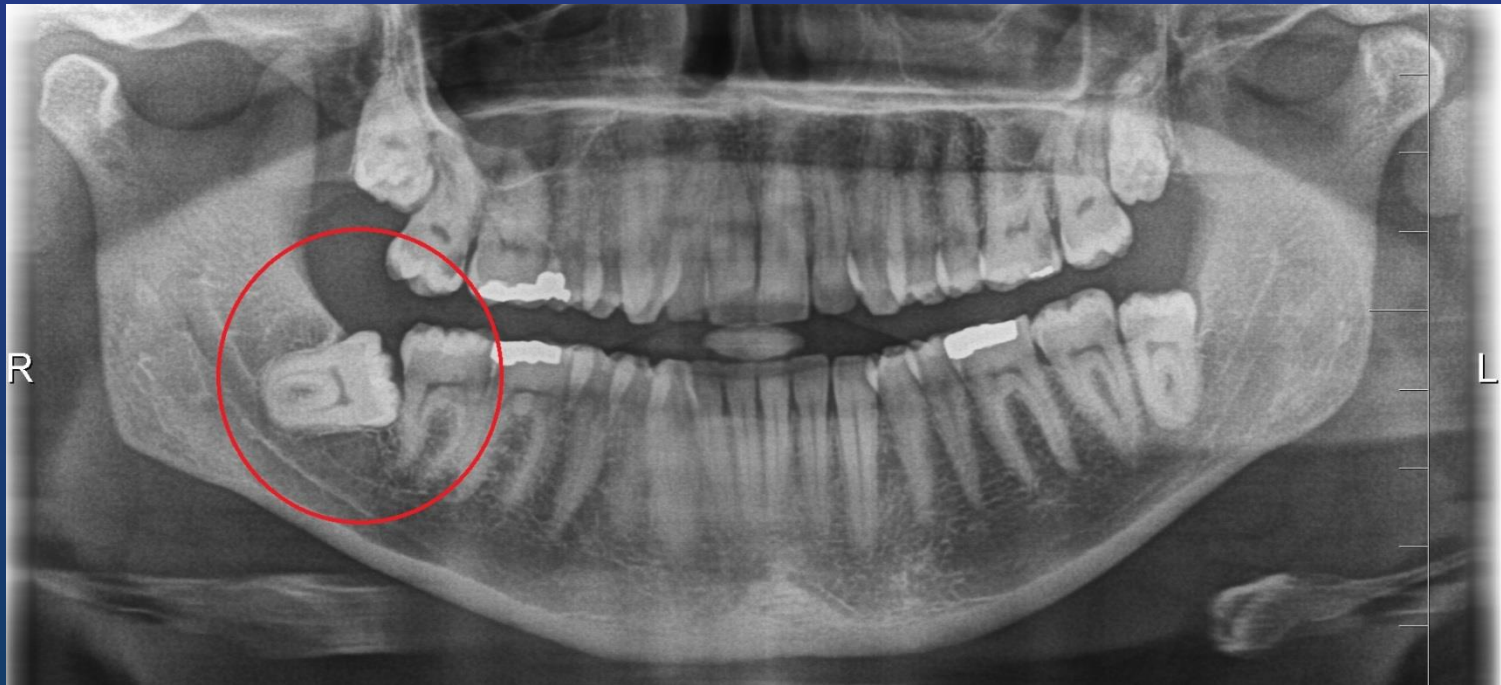
Partially impacted third molar



Impacted third molar



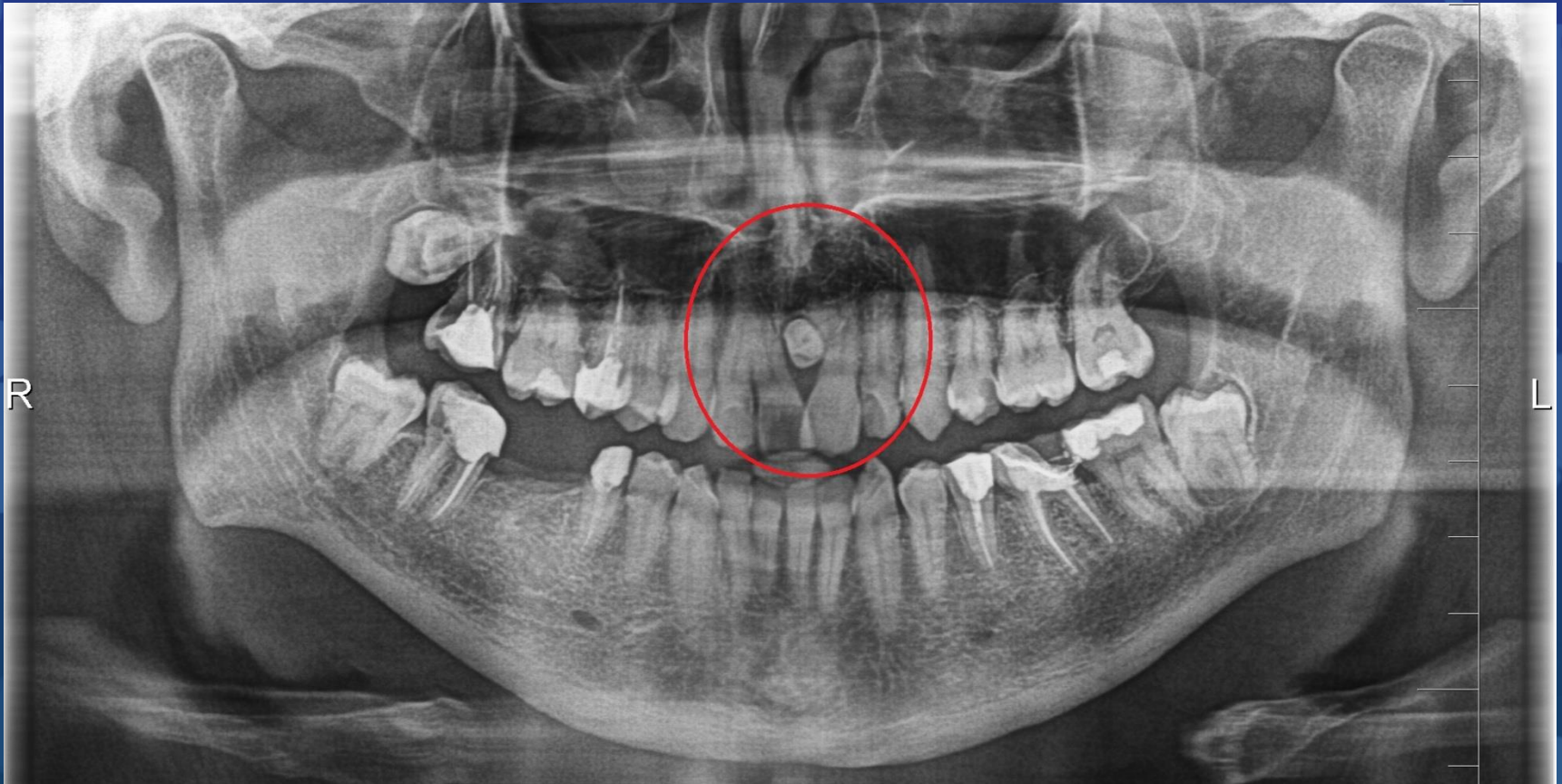
Dystopically stored molar



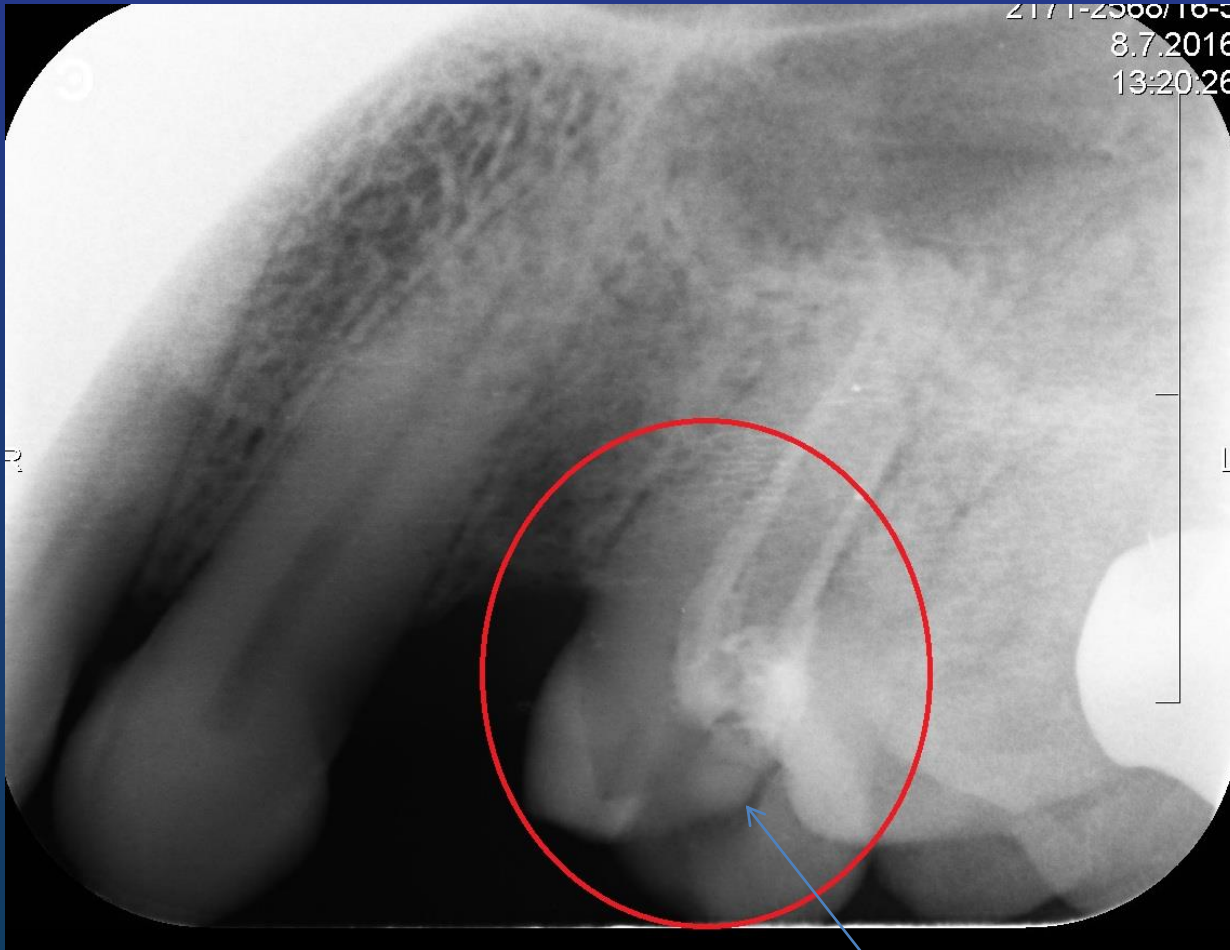
Dystopically stored tooth



Dystopically stored tooth



Tooth fracture



Cases

The background of the slide is a dark blue gradient. It is decorated with various leaf silhouettes in a lighter shade of blue, scattered across the top and sides.

Instructions

- 1. Diagnosis of the patient
- 2. OPG
- 3. Describe the OPG and write down a treatment plan if the patient is healthy (oral hygiene determine from OPG , description at the beginning of presentation)
- 4. Describe the changes in treatment plan, if the patient has a diagnose written at the beginning of the case and on what you shoud pay attention during the treatment
- (5. At the end of ppt are treatment plans to the cases to compare with your treatment plans)

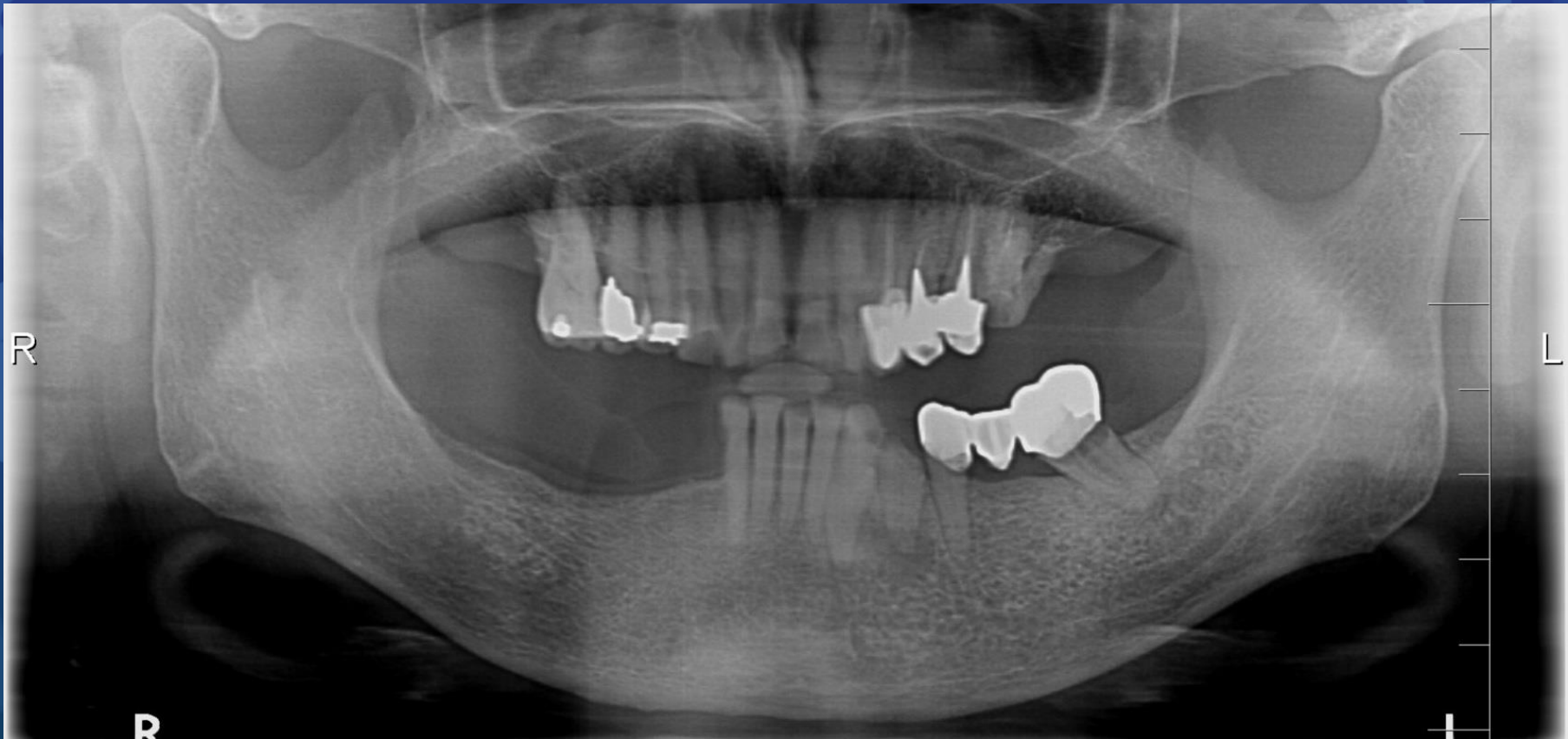
Description of the treatment plan

- 1. Hygiene
- 2. Extractions
- 3. Endo/ re-endo treatment
- 4. Fillings
- 5. Prosthetic treatment : Partial/ Total removable dentures/ crowns/bridges/ prosthetic work(s) carried by implants

Case n.1

- Diabetes mellitus II.type - compensated

DM II.type - compensated



Treatment plan:

- 1. Hygiene
- 2. Extraction: 26, 37, 34
- 3. Endo treatment: 15, 13
- 4. Re-endo treatment: 23-25
- 5. Fillings: 13-22, 33
- 6A. Partial rem. denture LJ: replacing 36-37, 34, 43-47
- 6B. Implants: (v UJ (26)) v LJ (v area 36/37, in the area. 43, 45 a 46/47)
- 7. Crown and root inlay : 15, 24, 25
- 8. Crown: 23, Implant and crown : 26
- 9. Metal – ceramic bridge on implants 43-47
- 10A. Metal – ceramic bridge 33-35 and crown on implant in the area. 36/37
- 10B. Metal – ceramic bridge 33-37

Diabetes mellitus

- **Clinical symptoms:** Polyuria
- Anorexia
- Parodontitis
- Hyposalivation
- Red coloured tongue
- Glossitis
- Atrophy of papillas, atrophy of mucosa (predisposition to inflammations and ulcers)
- Candidosis
- Higher amount of car.pulp.prox., pulpitis a periodontitis
- Stomatodynia, glosodynia
- Taste disorder
- Bilateral, not painful enlargement of gl.parotis, caused by sialosis
- Acetodynia (uncompensated DM)
- **Rizika:** 1. Hypoglycemia, 2. Stress (Flooding of adrenalin and corticoids – antagonists of inzulin), 3. Slower healing, 4. More often periodontopathys, 5. Hyposalivation and lower fluidity of saliva (dekubitus), 6. Candidosis under PRD/TRD

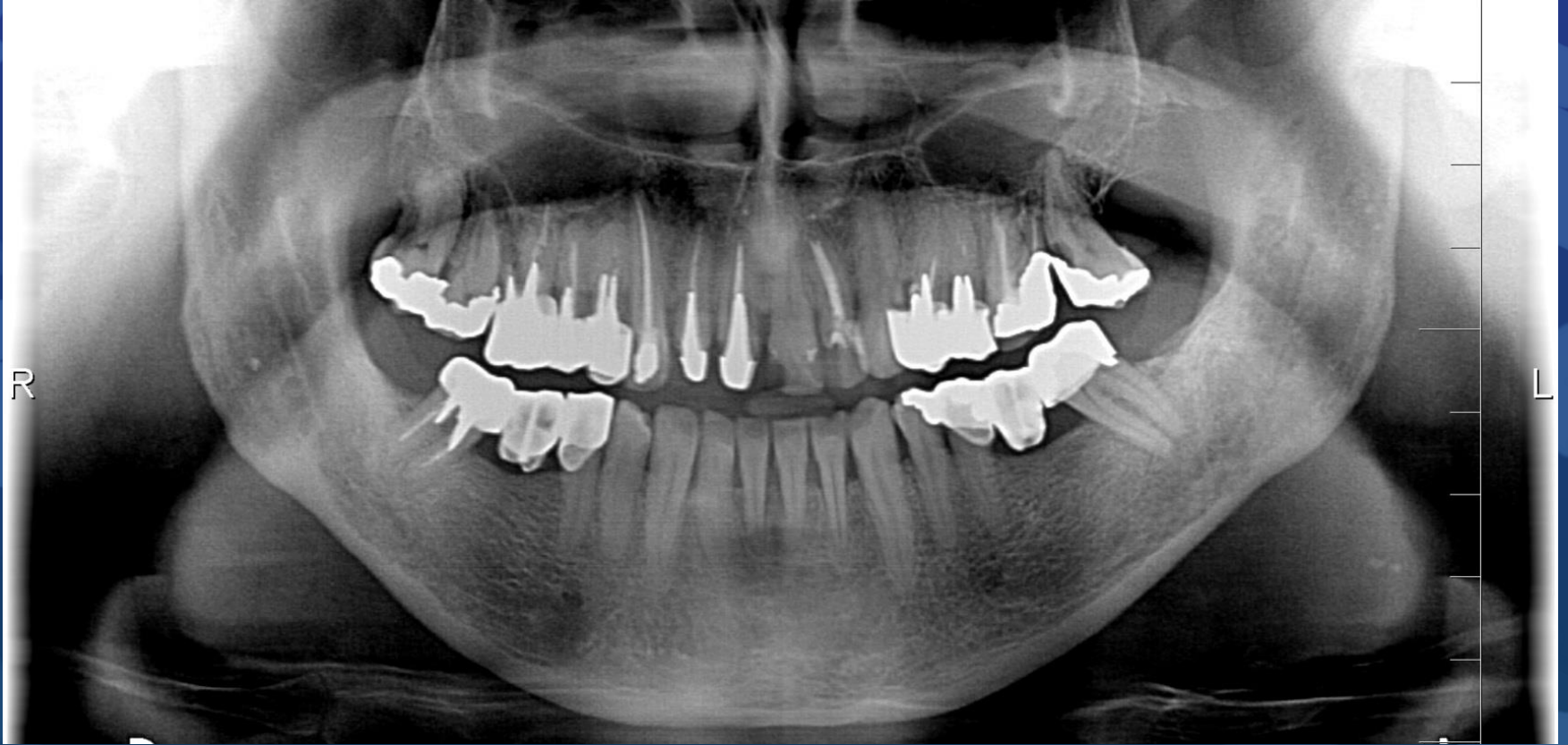
Diabetes mellitus

- **Ordination:** 1. Uncompensated DM(Compensate !!!)
- 2. Never on an empty stomach!!!
- 3. After application of PAD/insulin
- 4. Urgent operation on uncompensated person need to be consulted with the diabetolog
- 5. By injuries in orofacial area/ operation in the OFA never prohibit the food
- 6. LA without adrenaline /max 1:200000 6 ML
- 7. Surgery in ATB preparation (PNC ATB 2 G 1 H before surgery, after every 8 H. Klindamycin 300 mg 1H before, after every 6H, for 5-7 days)
- 8. Orofacial inflammation: everytime ATB!! and send the patient to spicialised hospital
- 9. Treatment of periodontopathies and HYGIENE!!
- 10. Treatment of all teeth, prevention of pulpitis, peridontitis, longer irrigation (edndo treatment)
- 11. Reconstruction by partial/total removable dentures, prevention of decubits, addition of tooth in denture after extraction
- 12. If patient is compensated, it is possible to do implants

Case n.2

- Operation in ECC(Extra corporal circulation) such as valve transplantation, bypass, ..

Operation in ECC(valve,bypass,..)



Treatment plan:

Version 1. Short time before operation:

1. Extraction: 18-14,24-27 – (teeth with poor or no endo treatment), the rest of treatment after operation
- 2A. 21,22 – fillings
- 2B. 21 – end.treatm.,root inlay, metal-ceramic crown 22 – root inlay and metal-ceramic crown
- 3A. Partial removable denture : 17-14, 24-26
- 3B. Implants: 16,14,24,26 and metal-ceramic bridges 16-14, 24-26

Version 2. Long time before operation:

1. Hygiene
2. Extraction: 18,27
3. Endo treatment: 17
4. Re-endo treatment: 16-14, 24-26
5. Fillings: 33,32,44
6. Root inlay: 17-14, 21,22, 24-26
7. Metal-ceramic bridge: 17-14, 13-23, 24-26 / MC bridge 17-26

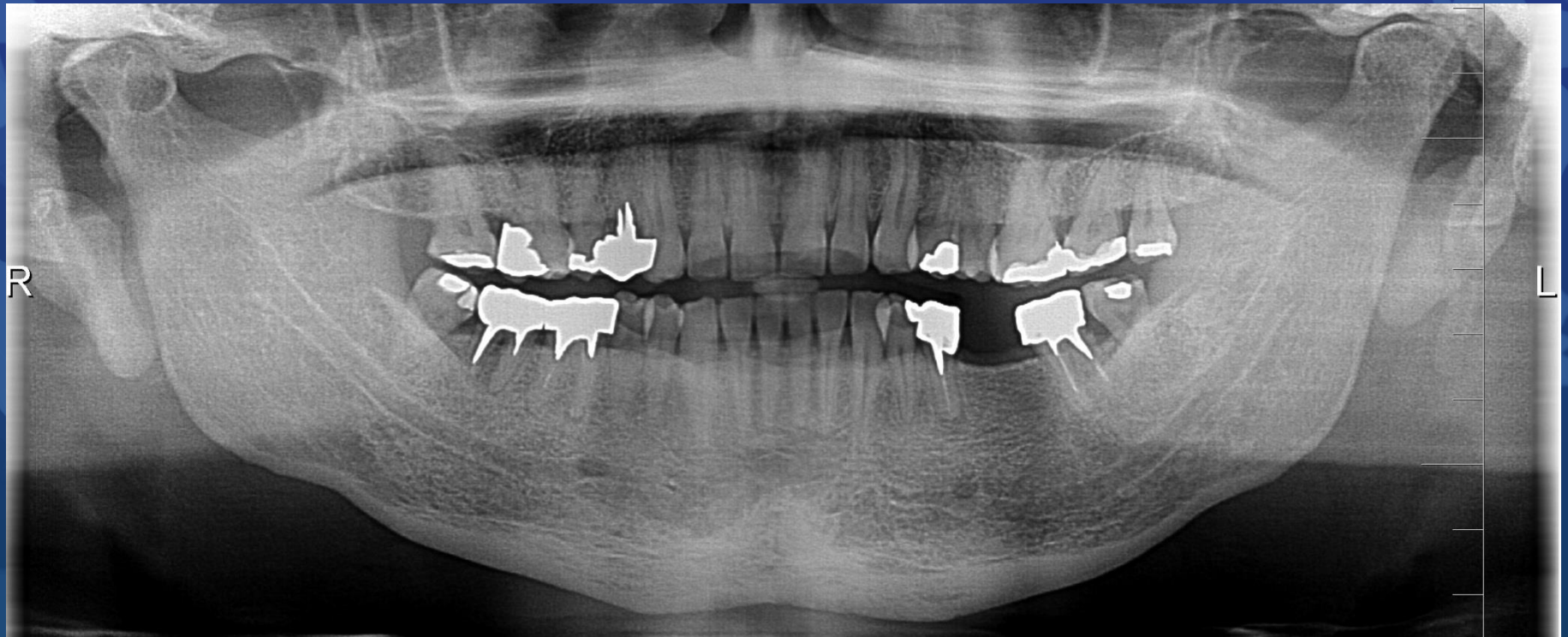
Complication:

- Infection and rejection of implant
- Complicated healing
- Transport of infection from oral cavity by blood circulation to another place
- **Exclusion of infection localised in oral cavity before operation**
- **Extraction**: All teeth with periapical lesion
- Radices
- Teeth with vertical, oblique fracture or horizontal fracture in middle part of root
- Teeth with poor endo treatment
- Teeth with caries pulpa penetrans
- Teeth with a crown and root inlay without endo treatment
- Partially impacted teeth, teeth with chronic pericoronitis
- **Be careful!!**: Ulcers, decubits, periodontal trunks, inflammation of saliva glands, sialolithiasis, periodontitis, gingivitis, regional lymphadenitis, cysts (risk on infection)

Case n.3

- Epilepsy Grand mal/ Petit mal - compensated

Epilepsy grand/petit mal compensated



Treatment plan:

- 1. Hygiene
- 2. Extraction : 28
- 3. Endo treatment: 16 a 24
- 4. Re-endo treatment: 14, 35, 46, 47
- 5. Fillings: 18, 26, 27, 48
- 6A. Root inlay a MC crown: 14, 35, 46, 47 and implant with MC crown: 36
- 6B. Root inlay and MC crown: 14, 46, 47 and 35 – root inlay and MC bridge: 37-35

Complication

- Danger of new episode when using a light in the eyes
- Danger of new episode when treatment in one visit is long (in hours)
- Can't be any partial/total removable dentures, danger of fracture during episode
- **All prosthetic works must be ONLY fixed**
- Can't be any resin or full ceramic crowns and bridges, danger of fracture during episode and swallow or inhalation of small parts
- Danger of new episode caused by pain

Case n.4

- **Astma bronchiale**

Astma bronchiale



Treatment plan

- 1. Hygiene
- 2. Extraction: 38,48
- 3. Re – endo treatment: 25,27, 46
- 4. Fillings: 16-14, 12, 24,26, 37-35, 45,47
- 5. Root inlay a MC crown : 25,27, 46
- 6. Implant and MC crown:17

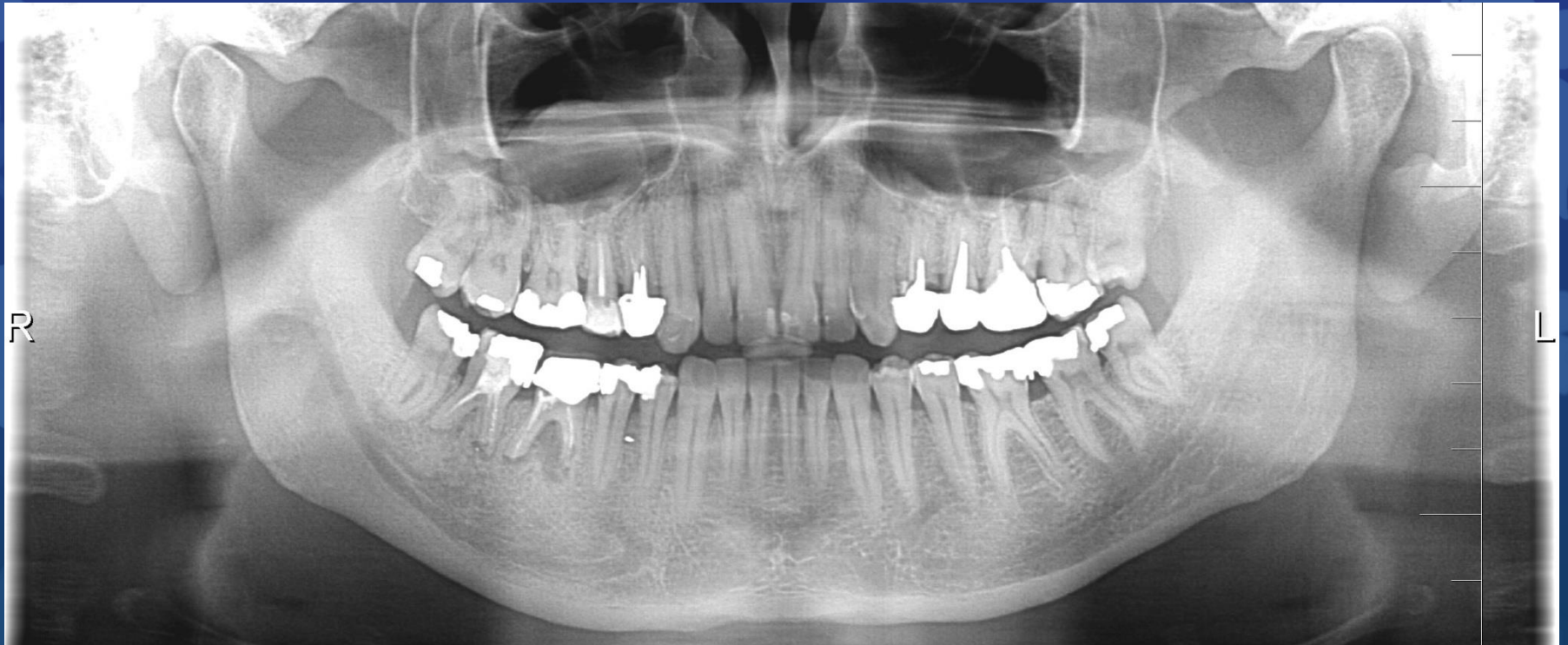
Astma bronchiale

- **Klinical symptoms:** shortness of breath, tachypnoe, stridor, difficulti talk, blue-grey coloured mucous membranes, tachycardia, unrest, perspiration, overfilled A.carotis,
- **Orofacial symptoms.:** Allergic rhinitis, mounth breathing, cyanotic coloured mucouc membranes, pseudomembranous candidosis (caused by inhalation cortisosteroidy), changed Ph of saliva (caused by symphatomimetics), stomatitis, caries, gastroesophageal reflux (caused by symphatomimetics), enamel erosion
- **Danger:** 1. episode during treatment (stress, allergen, toxicity of chemicals), 2. breathing problems (rubberdam, bilateral anesthesia, long preparation, impressions), 3. inhalator (risk of candida albigans)
- **Ordination:** 1. minimalise stress, 2. don ´t use barbiturates, k.ASA, nonteroid antiflogistics (release of histaminu), 3. room with afresh air 4. before longer treatment use corticosteroids

Case n.5

- Before (re)operation of hip joint

Before (re)operation of hip joint



Treatment plan

Version 1. Short time before operation:
extraction: 15,14, 24-26, 46,47

Treatment after operation:

1. Endo treatment: 27,36, 45
2. Fillings: 13-22, 38,37, 44, 48
3. Implants: 15,14, 24,26, 46,47
- 4A.MC crown on implant : 15,14, 46,47 and MC bridge on implants: 24-26
- 4B.Partial removable denture: 15,14, 24-26 and partial removable denture 46 a 47 (if patient has no money)
- 4C. MC bridges: 17-13, 23-27 a 44-48 , but there is a big danger of fracture 23, because of big pressure

Treatment plan

Version 2. Long time before operation:

1. Hygiene
2. (Extraction: 46)
3. Endo treatment: 16,27
4. Re-endo treatment: 15,14,24-26,46,47
5. Fillings: 13-22, 38,37, 44,48
6. Root inlay and MC crown korunka: 15,14, 24-26, (46), 47

Before (re)operation of hip joint

- **Exclusion of infection localised in oral cavity before operation**
- Danger of transport of infection from oral cavity by blood circulation to another place
- **Extraction**: All teeth with periapical lesion
- Radices
- Teeth with vertical, oblique fracture or horizontal fracture in middle part of root
- Teeth with poor endo treatment
- Teeth with caries pulpaе penetrans
- Teeth with a crown and root inlay without endo treatment
- Partially impacted teeth, teeth with chronical pericoronitis
- **Be careful!!**: Ulcers, decubits, periodontal trunks, inflammation of saliva glands, sialolithiasis, periodontitis, gingivitis, regional lymphadenitis, cysts (risk on infection)

Case n.6

- Before treatment by bisphosphonates

Before treatment by bisphosphonates



Treatment plan

Version 1. Short time before treatment: extraction: 14,11,22, 26,27, 36

After treatment:

1. Hygiene

2. Fillings: 15,13, 21,24,25

3A. Partial removable denture in UJ: 16,14,11, 22, 26 and LJ: 36,46

3B. MC bridge in LJ: 44-47 and 35-37 and MC bridge in UJ: 17-25

Version 2. Long time before treatment:

1. Hygiene

2. Extraction: 11,22

3. Endo treatment: 27

4. Re-endo treatment: 14,26,46

5. Root inlay a MC crown: 26, 27, 46

6. MC bridge: 17-14(root inlay), 13-23, 35-37

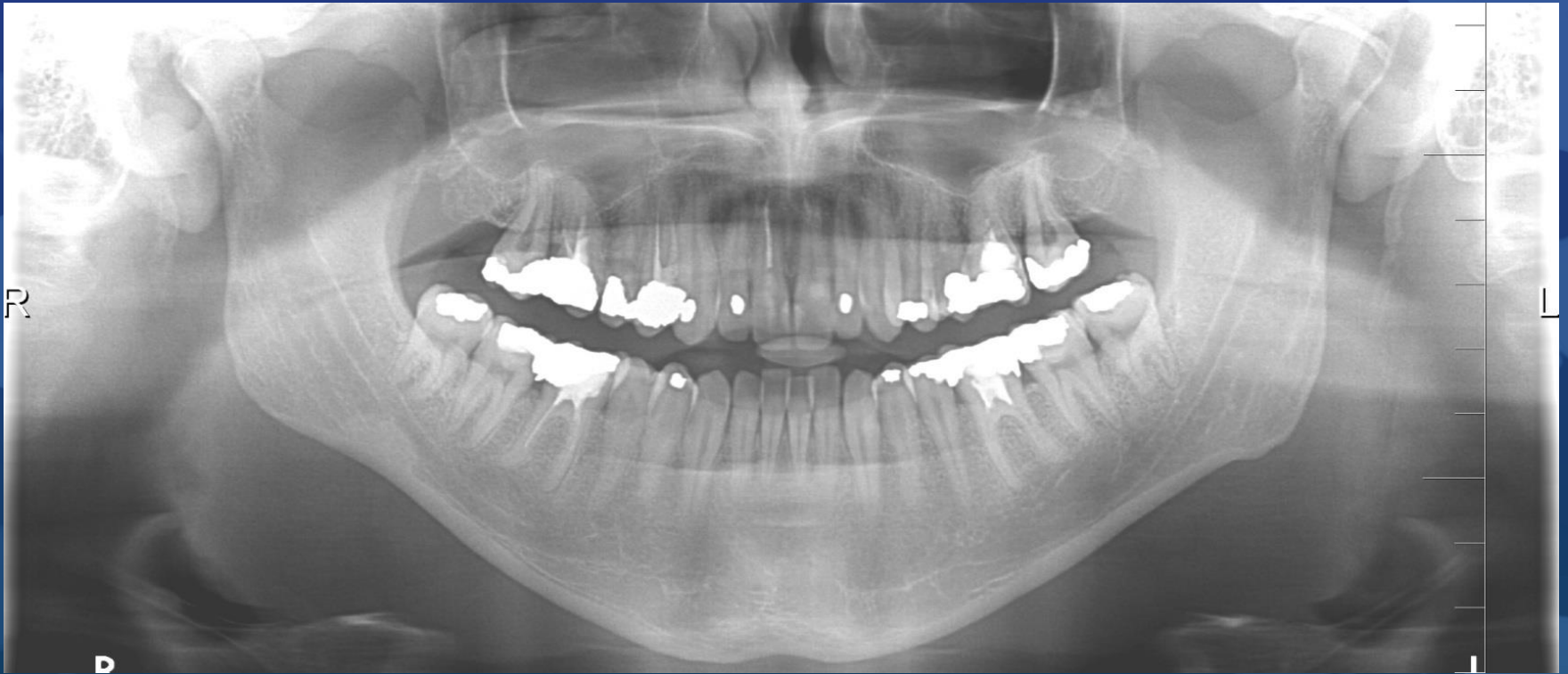
Complication

- **Exclusion of infection localised in oral cavity before operation**
- Transport of infection from oral cavity by blood circulation to another place
- Danger of bone necrosis after tooth extraction during treatment by bisphosphonates without ATB
- **Extraction**: All teeth with periapical lesion
- Radices
- Teeth with vertical, oblique fracture or horizontal fracture in middle part of root
- Teeth with poor endo treatment
- Teeth with caries pulpa penetrans
- Teeth with a crown and root inlay without endo treatment
- Partially impacted teeth, teeth with chronic pericoronitis
- **Be careful!!**: Ulcers, decubits, periodontal trunks, inflammation of salivary glands, sialolithiasis, periodontitis, gingivitis, regional lymphadenitis, cysts (risk on infection)

Case n.7

- Before transplantation of kidneys, livers, lungs, ...

Before transplantation of kidneys,
livers, lungs, ...



Treatment plan

Version 1. Short time before operation: extraction: 16,14,26, 36,46

After operation:

1. Hygiene
2. Endo treatment: 15,25
3. Fillings: 17, 27, 38, 37, 35, 47
- 4A. MC bridges: 17-13, 25-27, 37-35, 45-47
- 4B. Implant and MC crown: 16,14,26,36,46

Version 2. Long time before operation:

1. Hygiene
2. Endo treatment: 15,25,26,36
3. Re-endo treatment: 16,14,46
4. Root inlay and MC crown: 16,14,26,36,46

Complication

- Exclusion of infection localised in oral cavity before operation
- Transport of infection from oral cavity by blood circulation to another place
- Extraction:
- All teeth with periapical lesion
- Radices
- Teeth with vertical, oblique fracture or horizontal fracture in middle part of root
- Teeth with poor endo treatment
- Teeth with caries pulpaе penetrans
- Teeth with a crown and root inlay without endo treatment
- Partially impacted teeth, teeth with chronical pericoronitis
- **Be careful!!**: Ulcers, decubits, periodontal trunks, inflammation of saliva glands, sialolithiasis, periodontitis, gingivitis, regional lymphadenitis, cysts (risk on infection)

Case n.8

- Onkological patient

Onkological patient before therapy



Treatment plan

- Version 1. Short time before therapy:

extraction: 16-14, 24-26, 36,35, 73, 47

After therapy:

1. Hygiene

2. Fillings: 17, 21-23, 37, 44

- 3A. Partial removable denture in UJ: 16-14, 24-26 and PRD in LJ: 36,35, 46, 47

- 3B. Implants and MC bridge: 16-14, 24-26 and implants and MC crowns: 36,35, 46, 47

Version 2. Long time before therapy:

1. Hygiene

2. Endo treatment: 15, 26, 37

3. Re-endo treatment: 16,14, 24, 25, 36,35

- 4A.MC bridge: 45-47

- 4B: Implant and MC crown: 46

Onkological patient complication

- Exclusion of infection localised in oral cavity before operation
- Transport of infection from oral cavity by blood circulation to another place
- Extraction:
- All teeth with periapical lesion
- Radices
- Teeth with vertical, oblique fracture or horizontal fracture in middle part of root
- Teeth with poor endo treatment
- Teeth with caries pulpaе penetrans
- Teeth with a crown and root inlay without endo treatment
- Partially impacted teeth, teeth with chronical pericoronitis
- **Be careful!!**: Ulcers, decubits, periodontal trunks, inflammation of saliva glands, sialolithiasis, periodontitis, gingivitis, regional lymphadenitis, cysts (risk on infection)

Case n.9

- Pregnant patient

Pregnant patient



Treatment plan

- Version 1. : Better to wait after gravidity and then:
 - 1. Hygiene
 - 2. Extraction: 18,28,38,48
 - 3. Endo treatment: 37
 - 4. Fillings: 16-14, 24-26, 36,35, 45,46
- Version 2. Acute problem during gravidity:
 - Treatment of acute problem and the rest after gravidity

Coplication

- Since 2nd trimester must patient sit or half sit -half lay during the visit
- Complete treatment before gravidity
- Anestezsia without adrenaline/ max. 1:200 000
- Extraction/Endo treatment in 3rd trimester
- **NO XRAYS!!!**

Case n.10

- Patient for exclusion of danger of infectious endocarditis

Exclusion of danger of IE



Treatment plan

- 1. Hygiene
- 2. Endo treatment: 13,23,37,47
- 3. Re-endo treatment: 15,12,24,25,27
- 4. Fillings: 18,28,36, 38
- 5. MC bridge: 17-15, 13-23
- 6. MC crown and root inlay: 24,25, 27
- 7.Extraction: 18,28

Infectious endocarditis

- **Anamnesis:** IE in the past , after heart operation, heart defect and disease, medication: antikoagulants, antiagregants
- **Klinical symptoms:** 1. Valve defects (murmur, heart failure), 2. Embolism 3. Symptoms of infective disease (sick, fever, shivering, tiredness, pain of joints,..)
- **Orofacial symptoms:** petechie and bleeding from mucose membranes in oral cavity
- **Danger:** 1. bakteriemia after intervention in oral cavity 2. bakteriemia after removing of dental stone 3. ATB according to the level of danger of development of IE
- **Ordination** 1. ATB before invasive interveticion in OC
- 2. invasive interveticion until 1 h after regular use of ATB
- 3. (it 's possible to use ATB 2 h after intervention)

Infectious endocarditis

- **Extraction:**
- All teeth with periapical lesion
- Radices
- Teeth with vertical, oblique fracture or horizontal fracture in middle part of root
- Teeth with poor endo treatment
- Teeth with caries pulpaе penetrans
- Teeth with a crown and root inlay without endo treatment
- Partially impacted teeth, teeth with chronical pericoronitis
- **Be careful!!!**: Ulcers,decubits,periodontal trunks,inflamation of saliva glands, sialolithiasis, periodontitis, gingivitis,regional lymphadenitis, cysts (risk on infection)

Case n.11

- Hypotension

Hypotension



Treatment plan

- 1. Hygiene
- 2. Endo treatment: 27,37
- 3. Re-endo treatment 16-14,24-26, 36,46,47
- 4. Fillings: 17,22
- 5. Root inlay and MC crown: 16-14, 24-26, 36,46,47

Hypotension

- **Clinical symptoms:** 1. Orthostatic sickness (sickness, weakness, black spots in front of one's eyes, vertigo when quickly standing from sitting), 2. Depression, tiredness
- **Orofacial symptoms:** none
- **Danger:** 1. vasovagal faint, 2. orthostatic collapse, 3. paradoxical reaction after adrenaline – deeper hypotension
- **Ordination:** 1. patient is lying/ half lying-half sitting, 2. careful with prescription of benzodiazepines (deeper hypotension), 3. slowly changing the position into sitting after treatment

Case n.12

- **Infarction of myocardium**

Infarction of myocardium



Treatment plan

- 1. Hygiene
- 2. Extraction: 13,28, 38
- (3: Endo treatment: 27)
- 4. Re-endo treatment: 11,47
- 5. Fillings: 17,15,21, 26,37,36
- 6. Implant and MC crown: 13

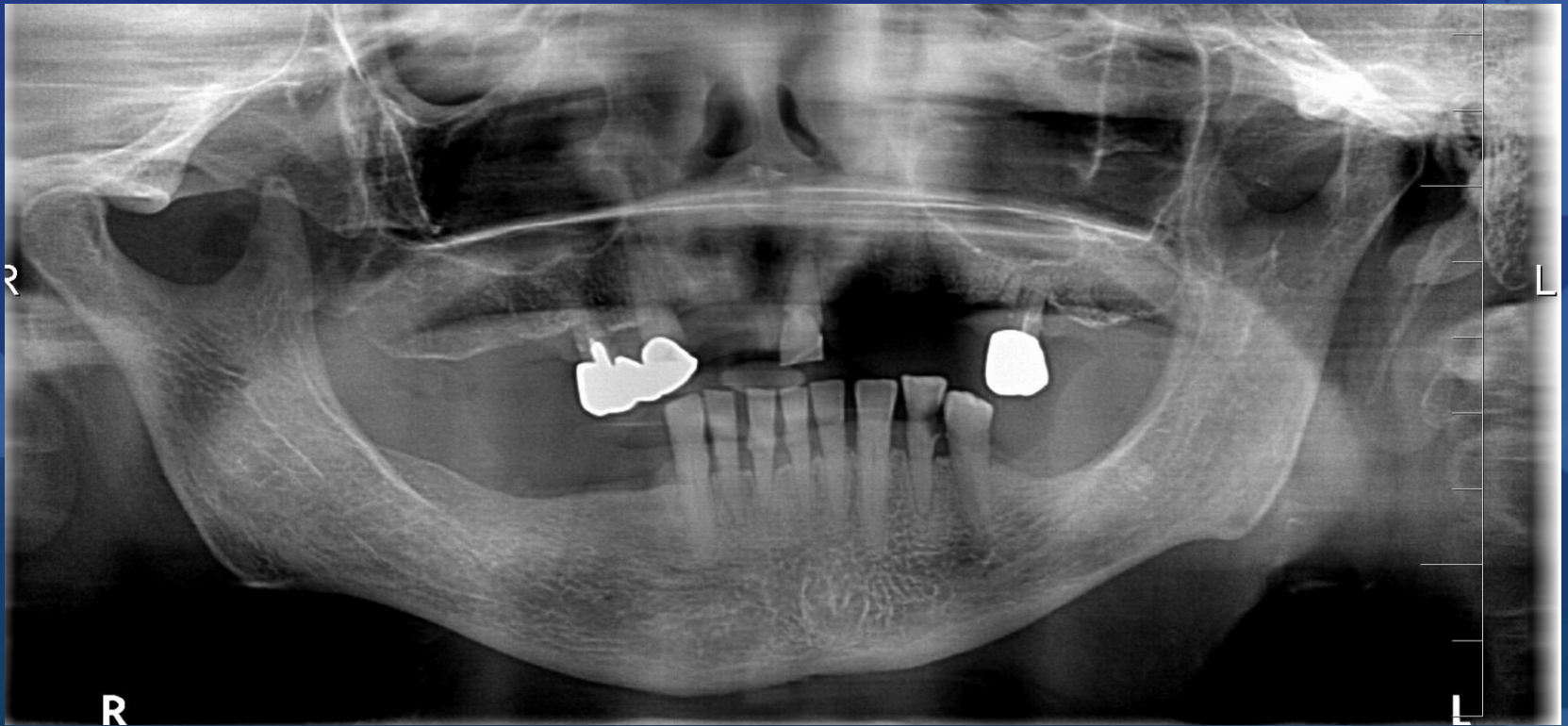
Infarction of myocardium

- **Acute:** angina pectoris which doesn't stop after nitrates, retrosternal pain radiating to upper extremities/ neck/ belly,.., úzkostanxiety, sickness, vomiting, dyspnoe, uneasiness, sweaty skin, tachycardia
- **St.after.IM:** none
- **Orofacial symptoms:** not typical, **after medication:** dry mucous membranes, change of taste, stomatitis
- **Danger:** 1. flood out of adrenaline after painful and stressful treatment causing IM, 2. new episode of IM, 3. higher bleeding (anticoagulants/ antiagregants)
- **Ordination:** 1. No surgical and big interventions 6 months after IM, 2. shorter time of treatment

Case n.13

○ Patient with ICD

Patient with ICD



Treatment plan

- 1. Hygiene
- 2. Extraction: all teeth in upper jaw, 34
- 3. Total removable denture in upper jaw: 17-27
- 4. Partial removable denture in lower jaw: 37,36,34, 44-47

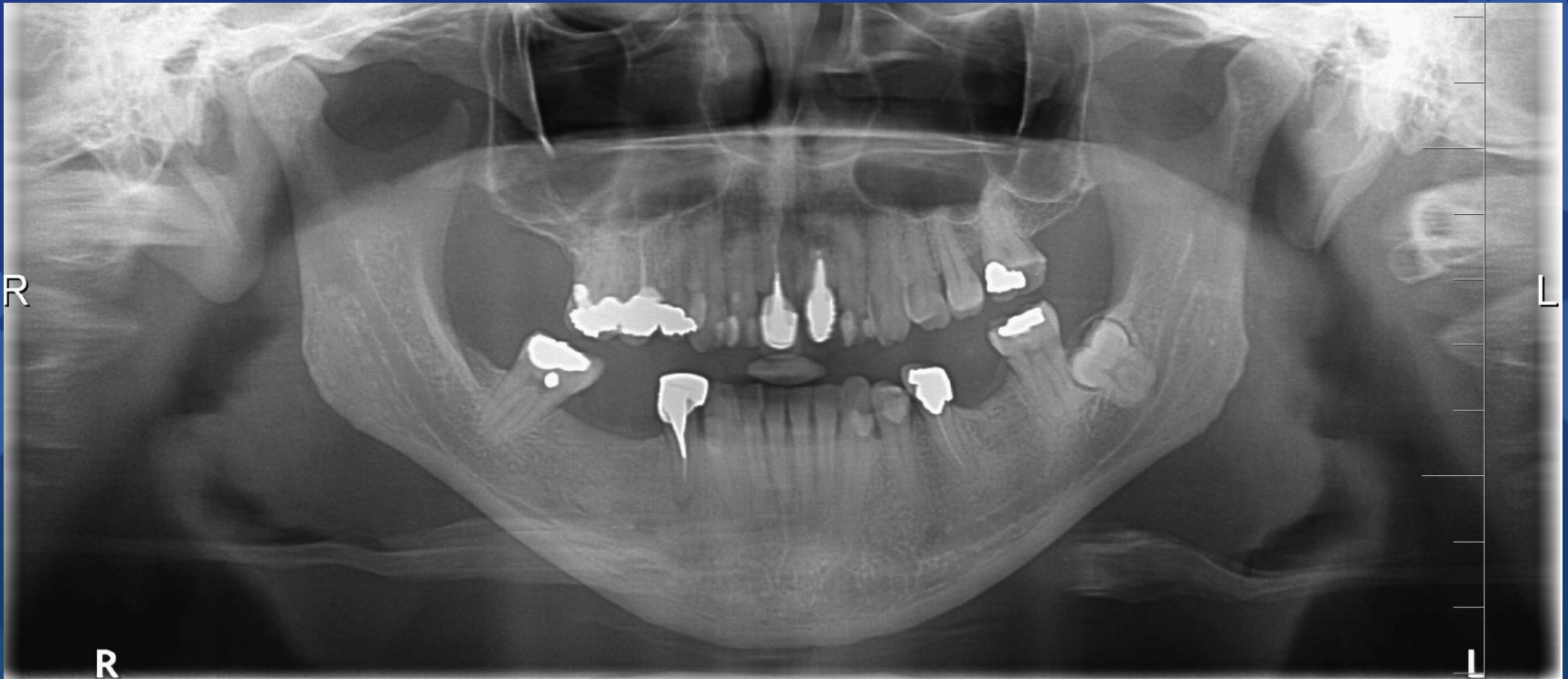
Patient with ICD

- **Klinical symptoms:** none
- **Orofacial symptoms:** none
- **Danger:** development of electromagnetic interference
(mobile phone, ultrasound for removing dental stone, electrocauter)
failure/ change of development of electroimpulses
- **Precautions:** 1. never turn on repeatedly the electric machines close to the patient, min.distance is 30 cm, 2. never use high frequency bipolar electrocauters, 3. cardiostimulator (Adrenalin v LA), 4. ICD (small amounts of LA, 1:200000, only bigger interventions)

Case n.14

- **Chronical bronchitis/CHOPI**

Chronical bronchitis/CHOPPI



Treatment plan

- 1. Hygiene
- 2. Endo treatment: 13, 22, 27
- 3. Re-endo treatment: 15, 11, 21, 35, 44
- 4. Fillings: 16, 12, 37, 34
- 5. Root inlay and MC crown: 15, 11, 21, 22, 27
- (6. MC crown – 12)
- 7A. MC bridge: 35-37, 44-47
- 7B. Implant and MC crown: 36, in the area 45/46 and root inlay and MC crown: 35, 44

Chronical bronchitis/CHOPI

- **Klinical symptoms:** caugh, shortness of breath, mucus-pus sputum
- **Orofacial symptoms:** cyanosis of face, halitosis
- **Danger:** 1. long term using corticosteroids (decreased immunity), 2. problems with breathing during preparation and impressions
- **Ordination:**1. DON ´T USE: hypnotics, sedatives barbiturates, benzodiazepines: danger of depression of breauthing ,dry mucous membranes, adhesion of mucus, 2.breathing problems when using bilateral MA/ treatment with rubberdam, 3. patient is siiting during the visit, 4. never use bilateral anesthesia, 5. (treatment without rubberdam) feeling of suffocation

Case n.15

- Gastroesophageal reflux

Gastroesophageal reflux



Treatment plan

- 1. Hygiene
- 2. Extraction: 18,38,48, konzultation with surgeon, if tooth between 11 and 21 need to be extracted
- 3. Re – endo treatment: 17,15, 45,47
- 4. Fillings: 24
- 5. Root inlay and MC crown: 17,15, 36
- 6A. MC bridge: 45-47
- 6B. Implant and MC crown: 46, root inlay and MC crown: 45,47

Gastroesophageal reflux

- **Clinical symptoms:** stomatitis, change of taste, burning in oral cavity, erythema of soft palate and uvula, erosions on frontal teeth palataly and on premolars
- **Ordination:** fluoridation, hygiene, treatment of erosions, soft toothbrush, toothpaste without abrasive particals, elevation of the bite by fillings, perfect prosthetic treatment

Case n.16

○ Crohn disease

Crohn disease



Treatment plan

- 1. Hygiene
- 2. Endo treatment: 17,26, 35
- 3. Re-endo treatment: 16,36, 45-47
- 4. Fillings: 15,27,34
- 5. Root inlay and MC crown: 17,16, 36,35, 45-47
- 6A. Implant and MC crown: 25 and root inlay and MC crown: 26
- 6B. MC bridge: 24-26

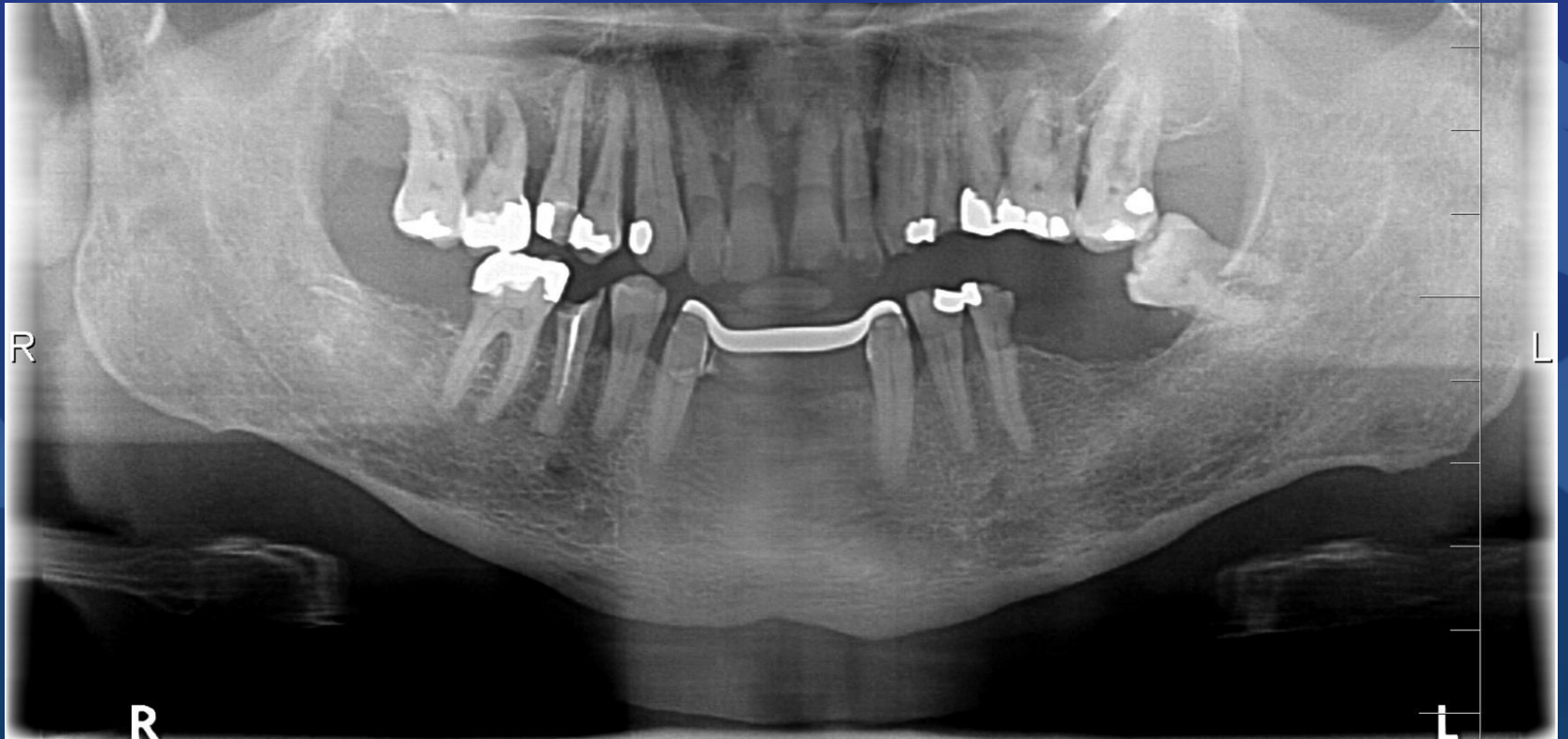
Crohn disease

- **Clinical symptoms:** erosions/ ulcers in oral cavity, irregular fattering of soft palate, diffusive oedema of lips, angular stomatitis, atrophic glossitis, orofacial lesion is in 20 percents of cases first symptom
- **Danger:** 1. suppression of inflamation in oral cavity by medication and after that spreading to other tissues, 2. H.Simplex induce by medication
- **Ordination:** 1. perfect restorative and prosthetic treatment, 2. stomato-surgical procedures during ATB use, 3. ATB medication during less serious orofacial inflamation, 4. if we suspect undiscovered Crohn disease, send the patient to specialist

Case n.17

- Acute/Chronical leukemia

Acute/Chronic leukemia



Treatment plan

Version 1. Short time before treatment: extraction: 17-14, 12-22, 38, 45

After treatment:

1. Hygiene
2. Fillings: 13,23, 25,26, 35,34, 44, 46
3. Partial removable denture in upper jaw: 16-14,12-22 and partial removable denture in lower jaw: 37-36, 45

Version 2. Long time before treatment

1. Hygiene
2. Extraction: 17-14, 12-22, 38, 45
3. Fillings: 13,23,25,26,35,34,44,46
4. Resin bridge: 13-23
5. Partial removable denture in upper jaw: 17-14 and lower jaw: 36,37 which keep the height of occlusion. After treatment of leukemia is possible to do implant: 36,37 and in upper jaw widening of partial removable denture after extraction of single tooth

Acute/Chronical leukemia

- **Clinical symptoms:** tiredness, loss of appetite, subfebrilia, loss of weight, anemia, bleeding of the gums, hyperplastic gingivitis/periodontitis which doesn't improve after good oral hygiene, bleeding from the nose, hyperplastic gingiva, mucosal/gingival ulcerations/necrosis, paresthesia of lower lip, enlargement of salivary glands, paleness of mucosa
- **Danger:** infection, bleeding, all surgical and invasive procedures must be done in specialised departments after consultation with hematologist!!
- **Ordination:** treatment of all teeth before treatment of leukemia, if something is acute, every procedure in oral cavity must be consulted with hematologist!!!, hygiene, prevention!!!, on patients with chronic leukemia it is possible to do some procedures during using ATB

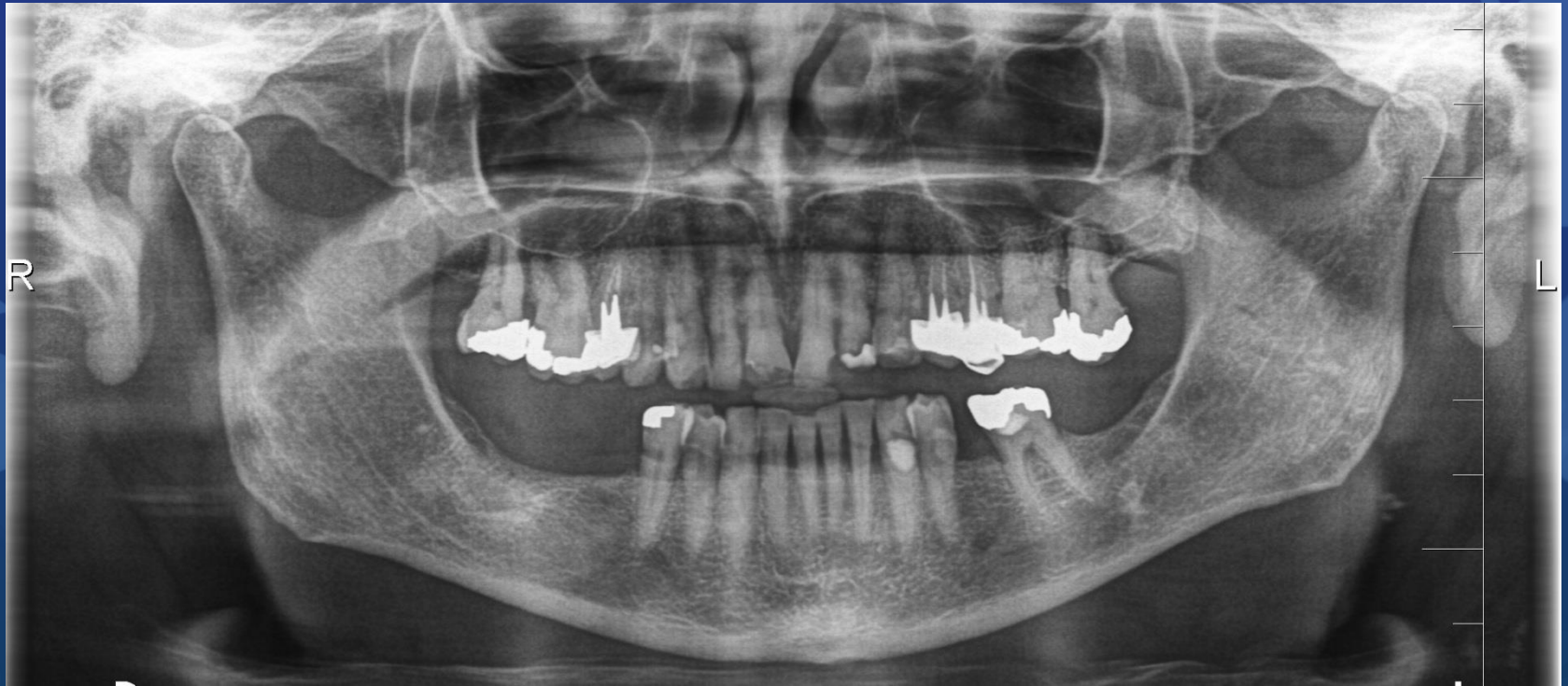
Acute/Chronical leukemia

- **Extraction:**
- All teeth with periapical lesion
- Radices
- Teeth with vertical, oblique fracture or horizontal fracture in middle part of root
- Teeth with poor endo treatment
- Teeth with caries pulpaе penetrans
- Teeth with a crown and root inlay without endo treatment
- Partially impacted teeth, teeth with chronical pericoronitis
- **Be careful!!!**: Ulcers, decubits, periodontal trunks, inflammation of saliva glands, sialolithiasis, periodontitis, gingivitis, regional lymphadenitis, cysts (risk on infection)

Case n.18

○ Hepatitis A/B

Hepatitis A/B



Treatment plan

- 1. Hygiene
- 2. Extraction: 27
- 3. Endo treatment: 16,22,23,36
- 4. Re- endo treatment: 15,24,25
- 5. Fillings: 17,11,21,23, 26, 34,33,42-45
- 6. Root inlay and MC crown: 15,22,24,25, (36)
- 7A. Partial removable denture: 37,46,47
- 7B. Implant and MC crown: 46,47 and implant in the area and MC bridge: 34-37

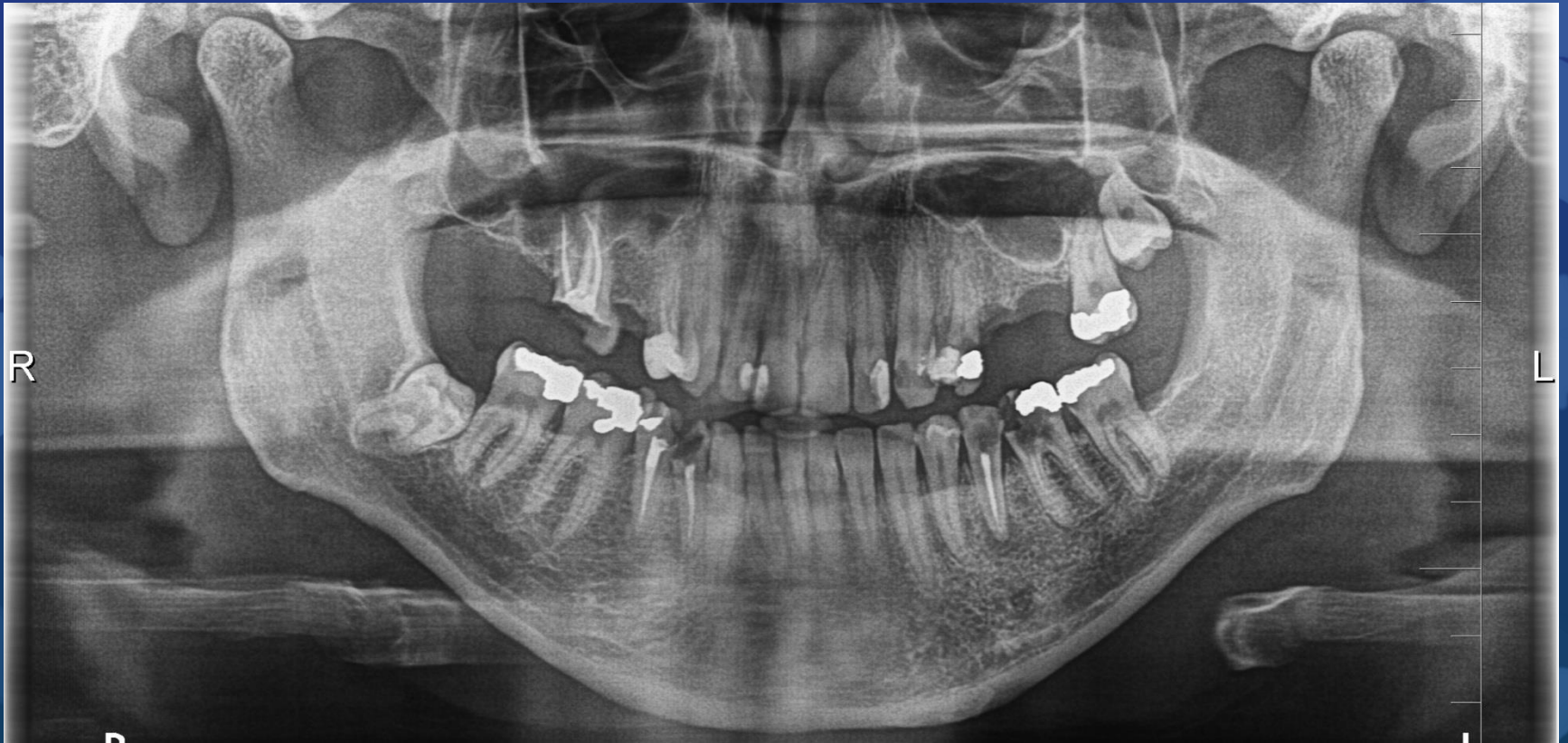
Hepatitis A/B

- **Clinical symptoms:** Yellow eyes, mucosa, skin
- Only first aid treatment
- As a last patient!!!
- Special hygienical regulations
- Clothes and instruments for one use
- Preparation without cooling
- Impressions for prosthetic work in special containers and disinfection
- Extraoral X-rays are preferred
- Lab technician has also special clothes

Case n.19

○ HIV/AIDS

HIV/AIDS



Treatment plan

- 1. Hygiene
- (2. Extraction: 28,48)
- 3. Endo treatment: 22-24,27,36,47
- 4. Re – endo treatment: 14,35, 44,45
- 5. Fillings: 12-22, 37,34,33, 46
- 6. Root inlay and MC crown: 36,35, 44,45
- 7A. MC bridge: 16-14, 23-27
- 7B. MC bridge: 16-14, implants: 25,26 and MC crowns: 23,24,25-26

HIV/AIDS

- **Clinical symptoms:** Cervical lymphadenopathy , repeatedly H.Zoster, repeatedly infections caused by cytomegalovirus, hairy leukoplakia, HIV necrotising gingivitis and periodontitis, repeatedly candidosis, angular cheilitis, Kaposi sarcom, non - Hodgkin LY, ulcerations
- **Ordination:** Hygienical regulation same as Hepatitis
- Only first aid treatment
- As a last patient!!!
- Special hygienical regulations
- Clothes and instruments for one use
- Preparation without cooling
- Impressions for prosthetic work in special containers and disinfection
- Extraoral X-rays are preferred
- Lab technician has also special clothes

Thank you for your attention