



Grounding Caption

This localization caption provides multi-dimensional spatial analysis of anatomical structures and pathological findings for this panoramic dental X-ray image, including:

Teeth visibility with center points (total: 27):

```
[
{'point_2d': [829, 431], 'tooth_id': '11', 'score': 0.94},
{'point_2d': [712, 625], 'tooth_id': '45', 'score': 0.93},
{'point_2d': [571, 652], 'tooth_id': '47', 'score': 0.93},
{'point_2d': [993, 649], 'tooth_id': '33', 'score': 0.92},
{'point_2d': [493, 471], 'tooth_id': '17', 'score': 0.91},
{'point_2d': [1149, 637], 'tooth_id': '36', 'score': 0.91},
{'point_2d': [1190, 442], 'tooth_id': '26', 'score': 0.91},
{'point_2d': [811, 647], 'tooth_id': '43', 'score': 0.9},
{'point_2d': [1295, 621], 'tooth_id': '38', 'score': 0.9},
{'point_2d': [648, 612], 'tooth_id': '46', 'score': 0.9},
{'point_2d': [708, 429], 'tooth_id': '13', 'score': 0.9},
{'point_2d': [1078, 645], 'tooth_id': '35', 'score': 0.89},
{'point_2d': [1035, 641], 'tooth_id': '34', 'score': 0.89},
{'point_2d': [1218, 642], 'tooth_id': '37', 'score': 0.89},
{'point_2d': [427, 476], 'tooth_id': '18', 'score': 0.89},
{'point_2d': [895, 426], 'tooth_id': '21', 'score': 0.88},
{'point_2d': [499, 636], 'tooth_id': '48', 'score': 0.88},
{'point_2d': [1123, 432], 'tooth_id': '25', 'score': 0.88},
{'point_2d': [857, 633], 'tooth_id': '42', 'score': 0.87},
{'point_2d': [909, 624], 'tooth_id': '31', 'score': 0.87},
{'point_2d': [760, 631], 'tooth_id': '44', 'score': 0.86},
{'point_2d': [1320, 468], 'tooth_id': '28', 'score': 0.85},
{'point_2d': [942, 629], 'tooth_id': '32', 'score': 0.84},
{'point_2d': [959, 428], 'tooth_id': '22', 'score': 0.81},
{'point_2d': [766, 434], 'tooth_id': '12', 'score': 0.78},
{'point_2d': [1015, 431], 'tooth_id': '23', 'score': 0.64},
{'point_2d': [1072, 435], 'tooth_id': '24', 'score': 0.64}
]
```

Wisdom teeth detection (total: 4):

```
[
{'box_2d': [1235, 556, 1354, 687], 'tooth_id': '38', 'is_impacted': false, 'score': 0.9},
{'box_2d': [388, 402, 466, 550], 'tooth_id': '18', 'is_impacted': false, 'score': 0.89},
{'box_2d': [437, 576, 561, 697], 'tooth_id': '48', 'is_impacted': false, 'score': 0.88},
{'box_2d': [1278, 397, 1362, 538], 'tooth_id': '28', 'is_impacted': false, 'score': 0.85}
]
```

Dental Pathological Findings (total: 1):

```
[
{'box_2d': [1152, 471, 1176, 501], 'tooth_id': 'unknown', 'label': 'caries', 'score': 0.32, 'near_tooth': '26'}
]
```

Historical Treatments (total: 0):

```
[
]
```

Medical Report

Teeth-Specific Observations

1. General Condition

A total of 27 teeth are visualized in the panoramic image. All four wisdom teeth (#18, #28, #38, #48) are present and non-impacted. The dental arch exhibits no evidence of significant resorption or bony expansion.

2. Pathological Findings

An area of concern is noted near tooth #26, suspicious for early carious lesion. No other pathological changes, including periapical radiolucency, impacted teeth, or calculus, are observed.

3. Historical Interventions

No prior restorations, crowns, root canal treatments, or implants are identified.

Clinical Summary & Recommendations

1. Priority Concerns

- **Area of suspected caries near #26:** Requires clinical correlation and further diagnostic evaluation to confirm and address.

2. Preventive Measures

- Reinforce patient education on interproximal plaque control, particularly in the region of #26.
- Emphasize regular fluoride application and dietary counseling to mitigate caries risk.

3. Follow-up Protocol

- **6-month recall** for radiographic monitoring of the suspicious area near #26.
- **Referral to general dentist or pediatric dentist** for direct clinical assessment of the suspected caries.
- Schedule follow-up imaging if there is no improvement in oral hygiene compliance or risk factors persist.