Ground Truth | Ensemble Prediction

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: 23):
[
{'point_2d': [526, 482], 'tooth_id': '17', 'score': 0.94},
{'point_2d': [1209, 629], 'tooth_id': '37', 'score': 0.93},
{'point_2d': [1050, 673], 'tooth_id': '35', 'score': 0.93},
{'point_2d': [1184, 434], 'tooth_id': '27', 'score': 0.93},
{'point_2d': [612, 491], 'tooth_id': '16', 'score': 0.92},
{'point_2d': [964, 697], 'tooth_id': '33', 'score': 0.9},
{'point_2d': [757, 717], 'tooth_id': '44', 'score': 0.9},
{'point_2d': [716, 490], 'tooth_id': '14', 'score': 0.89},
{'point_2d': [1110, 457], 'tooth_id': '26', 'score': 0.89},
{'point_2d': [668, 500], 'tooth_id': '15', 'score': 0.89},
{'point_2d': [757, 489], 'tooth_id': '13', 'score': 0.89},
{'point_2d': [922, 676], 'tooth_id': '32', 'score': 0.88},
{'point_2d': [1045, 458], 'tooth_id': '25', 'score': 0.88},
{'point_2d': [887, 681], 'tooth_id': '31', 'score': 0.87},
{'point_2d': [540, 668], 'tooth_id': '47', 'score': 0.86},
{'point_2d': [955, 470], 'tooth_id': '23', 'score': 0.85},
{'point_2d': [1001, 469], 'tooth_id': '24', 'score': 0.84},
{'point_2d': [909, 478], 'tooth_id': '22', 'score': 0.84},
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{'point_2d': [803, 500], 'tooth_id': '12', 'score': 0.79},
{'point_2d': [873, 493], 'tooth_id': '21', 'score': 0.77},
{'point_2d': [838, 502], 'tooth_id': '11', 'score': 0.72},
{'point_2d': [861, 691], 'tooth_id': '41', 'score': 0.61}
]

Wisdom teeth detection (total: 0):
[
]

Dental Pathological Findings (total: 4):
[
{'box_2d': [1087, 602, 1166, 694], 'tooth_id': 'unknown', 'label': 'root-stump', 'score': 0.92, 'near_tooth': '35'},
{'box_2d': [1215, 521, 1296, 670], 'tooth_id': 'unknown', 'label': 'impacted', 'score': 0.86, 'near_tooth': '37'},
{'box_2d': [1166, 572, 1210, 627], 'tooth_id': 'unknown', 'label': 'caries', 'score': 0.62, 'near_tooth': '37'},
{'box_2d': [1037, 599, 1077, 648], 'tooth_id': 'unknown', 'label': 'caries', 'score': 0.52, 'near_tooth': '35'}
]

Historical Treatments (total: 0):
[
]

Medical Report

Teeth-Specific Observations

1. **General Condition**

A total of 23 teeth are clearly visualized on the panoramic radiograph. No wisdom teeth (third molars) are present bilaterally. The dentition exhibits an overall intact alignment, with no evidence of gross anatomical anomalies or fractures.

2. **Pathological Findings**

- **Sign of root stump** is observed in the apical region near tooth **#35**, suggesting prior extraction or resorption.

- **Impacted tooth** is noted in proximity to tooth **#37**, with angulation likely requiring surgical evaluation.

- **Suspicious for caries** is identified in the mesial aspect near tooth **#37**, with radiolucency extending into the dentin.

- **Areas of concern** for potential caries are noted in the distal surface near tooth **#35**, requiring further clinical correlation.

3. **Historical Interventions**

No prior restorations, crowns, root canal treatments, or implants are evident in the visualized field.

Clinical Summary & Recommendations

1. **Priority Concerns**

- **Root stump near #35** and **impacted tooth near #37** require immediate attention to assess for infection, resorption, or surgical intervention.

- **Suspected caries near #37** and **#35** necessitate clinical examination to determine extent and treatment urgency.

2. **Preventive Measures**

- Reinforce oral hygiene protocols for caries-prone areas near **#35** and **#37**, emphasizing interproximal cleaning.

- Monitor radiolucencies near **#35** and **#37** for progression during routine recalls.

3. **Follow-up Protocol**

- **6-month recall** for radiographic reassessment of caries and impacted tooth status.

- **Referral to oral surgeon** for evaluation of impacted tooth **#37** and surgical planning.

- **Restorative consultation** for suspected caries near **#35** and **#37**.

Note: All findings are based on radiographic interpretation and must be correlated with clinical examination for definitive diagnosis.