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: 28):
[
{'point_2d': [546, 781], 'tooth_id': '47', 'score': 0.96},
{'point_2d': [1110, 828], 'tooth_id': '36', 'score': 0.95},
{'point_2d': [630, 822], 'tooth_id': '46', 'score': 0.94},
{'point_2d': [695, 845], 'tooth_id': '45', 'score': 0.94},
{'point_2d': [1187, 789], 'tooth_id': '37', 'score': 0.94},
{'point_2d': [1034, 849], 'tooth_id': '35', 'score': 0.93},
{'point_2d': [591, 601], 'tooth_id': '16', 'score': 0.93},
{'point_2d': [920, 656], 'tooth_id': '22', 'score': 0.93},
{'point_2d': [1204, 600], 'tooth_id': '27', 'score': 0.92},
{'point_2d': [1013, 633], 'tooth_id': '24', 'score': 0.92},
{'point_2d': [746, 634], 'tooth_id': '13', 'score': 0.92},
{'point_2d': [654, 618], 'tooth_id': '15', 'score': 0.92},
{'point_2d': [517, 587], 'tooth_id': '17', 'score': 0.92},
{'point_2d': [969, 636], 'tooth_id': '23', 'score': 0.91},
{'point_2d': [1061, 625], 'tooth_id': '25', 'score': 0.91},
{'point_2d': [700, 628], 'tooth_id': '14', 'score': 0.91},
{'point_2d': [785, 871], 'tooth_id': '43', 'score': 0.9},
{'point_2d': [946, 873], 'tooth_id': '33', 'score': 0.9},
{'point_2d': [1129, 610], 'tooth_id': '26', 'score': 0.89},
{'point_2d': [873, 656], 'tooth_id': '21', 'score': 0.88},
{'point_2d': [737, 863], 'tooth_id': '44', 'score': 0.88},
{'point_2d': [987, 872], 'tooth_id': '34', 'score': 0.88},
{'point_2d': [793, 640], 'tooth_id': '12', 'score': 0.87},
{'point_2d': [825, 860], 'tooth_id': '42', 'score': 0.86},
{'point_2d': [831, 649], 'tooth_id': '11', 'score': 0.85},
{'point_2d': [871, 865], 'tooth_id': '31', 'score': 0.82},
{'point_2d': [896, 863], 'tooth_id': '32', 'score': 0.77},
{'point_2d': [849, 868], 'tooth_id': '41', 'score': 0.74}
]

Wisdom teeth detection (total: 0):
[
]

Dental Pathological Findings (total: 3):
[
{'box_2d': [1024, 562, 1108, 732], 'tooth_id': '25', 'label': 'caries', 'score': 0.22},
{'box_2d': [1204, 476, 1284, 581], 'tooth_id': 'unknown', 'label': 'impacted', 'score': 0.78, 'near_tooth': '27'},
{'box_2d': [440, 468, 521, 554], 'tooth_id': 'unknown', 'label': 'impacted', 'score': 0.64, 'near_tooth': '17'}
]

Historical Treatments (total: 0):
[
]

Medical Report

Teeth-Specific Observations

1. **General Condition**

- A total of 28 teeth are visualized within the panoramic image.

- No wisdom teeth (third molars) are identified as visible within the field of view.

2. **Pathological Findings**

- **#25 (Lower Left First Molar)**: Suspicious for caries noted in the distal aspect.

- **Near #27 (Lower Right First Molar)**: Area suspicious for impacted tooth or bony irregularity.

- **Near #17 (Upper Left First Molar)**: Area suspicious for impacted tooth or bony irregularity.

3. **Historical Interventions**

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

Clinical Summary & Recommendations

Priority Concerns

- **Caries on #25**: Immediate evaluation by a dentist is recommended to confirm presence and extent of decay.

- **Impacted areas near #27 and #17**: Further imaging (e.g., CBCT) may be required to clarify the nature of these findings and assess for potential developmental anomalies or bony impaction.

Preventive Measures

- Reinforce oral hygiene protocols, particularly around #25, to mitigate progression of suspected caries.

- Monitor for signs of discomfort or infection in regions near #27 and #17.

Follow-up Protocol

- Schedule a 3–6 month recall to reassess the suspicious caries on #25 and evaluate the stability of impacted areas near #27 and #17.

- Referral to an oral surgeon or specialist is advised for definitive diagnosis of the suspected impacted regions if symptoms develop or radiographic findings persist.