

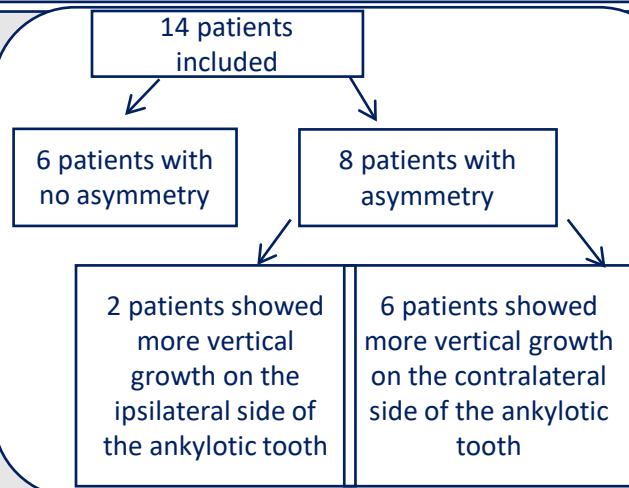
PP14: ANKYLOSED PERMANENT MOLARS AND THEIR EFFECT ON FACIAL DEVELOPMENT

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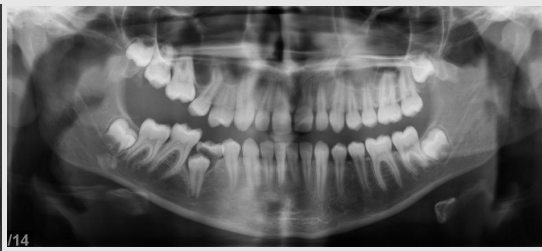
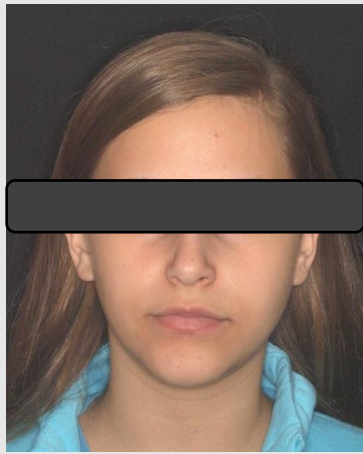
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Aim: Permanent molar ankylosis is a rare phenomenon, in which the affected tooth is an infraoccluded position in the dental arch or do not emerge into the oral cavity, limiting the involved alveolar bone development and leading to asymmetric dental occlusal relationship. The influence of this asymmetry on facial development has never been addressed. The aim of the present pilot study was to assess whether unilateral molar ankylosis leads not only to dentoalveolar asymmetry but also to facial asymmetry.

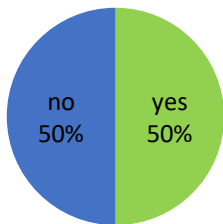
Patients and methods: 14 healthy patients (9 males, 5 females, mean age 12.9 years) with unilateral molar ankylosis were recruited to this retrospective study. The initial extra-oral and intra-oral photos were assessed for facial and dentoalveolar asymmetry, by clinical judgment and the following measurements: the amount of chin deviation, vertical height differences between the gonial angles and the presence of occlusal canting. The differences between the ramii and condylar length were measured on panoramic views.



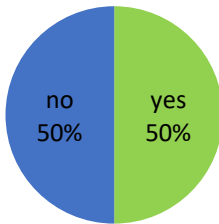
Results: 8 subjects showed evident clinical facial asymmetry and ≥ 3 positive values of facial, skeletal and dentoalveolar asymmetry measurements (i.e. $\geq 3\%$ difference between affected and contralateral sides and/or chin deviation and/or dentoalveolar occlusal cant).



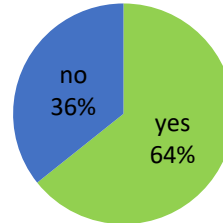
Vertical asymmetry



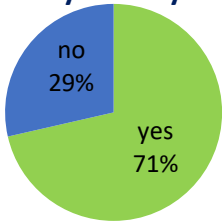
Chin deviation



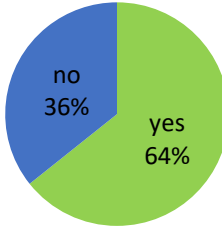
Gonial angle asymmetry



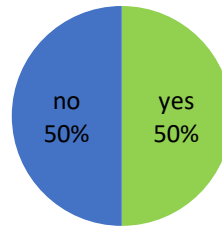
Condyle length asymmetry



Ramii length asymmetry



Dentoalveolar cant



Conclusion: More than half of the patients (57.1%) with unilateral molar ankylosis showed varied degrees of facial asymmetry and dentoalveolar occlusal cant. These findings should be considered when defining the occlusal and esthetic treatment goals and its optimal timing.