ASSESSMENT OF CAUSES AND TREATMENT OF CLEIDOCRANIAL DYSPLASIA

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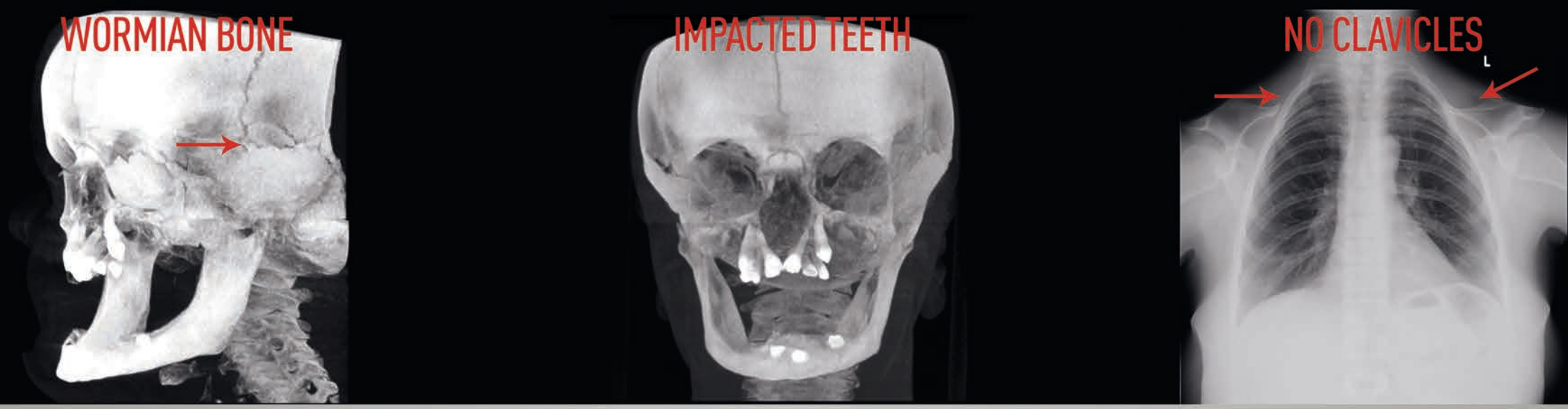
CLEIDOCRANIAL DYSPLASIA DIAGNOSIS ON X-RAYS



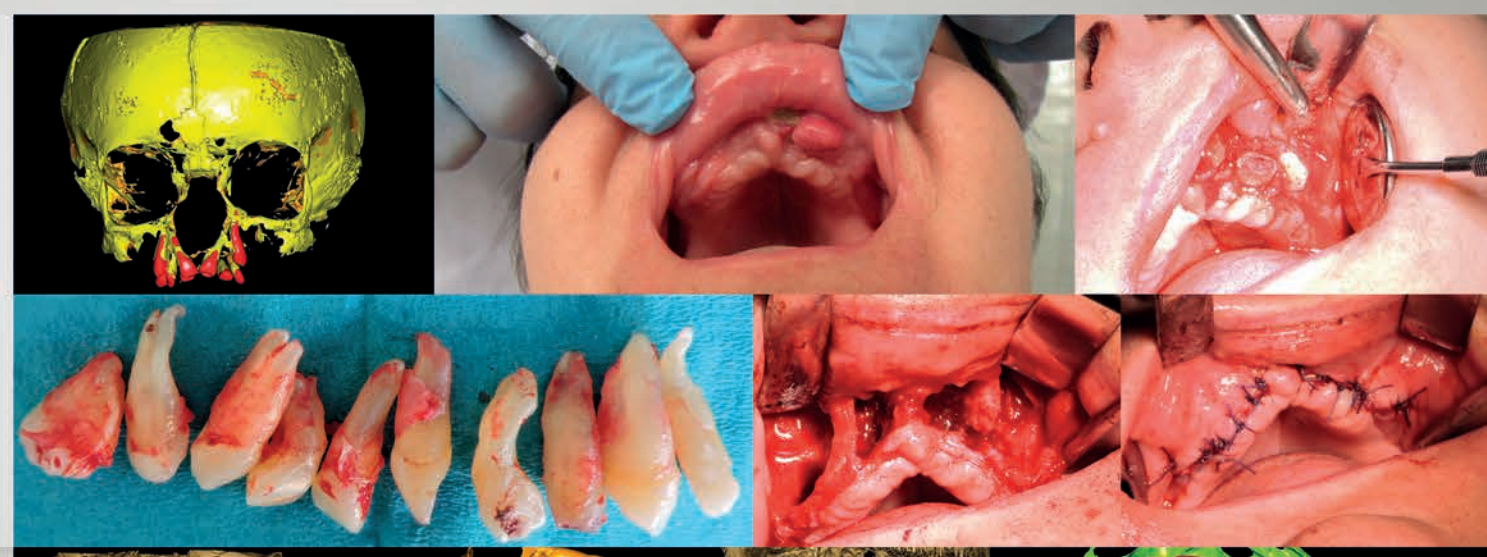
INTRODUCTION

A 48-year-old woman presented with pain in the area of tooth 22, preventing her from using a complete upper denture. The patient reported that she had been experiencing the symptoms with varied intensity for several months. Clinical examination demonstrated craniofacial anomalies (hypertelorism, collapsed nasal bridge, bossing of the forehead, brachycephaly) as well as complete maxillary and mandibular edentulism. Permanent teeth had never erupted. Cone beam computed tomography showed impacted teeth, supplemental teeth and no tooth germs in posterior segments. All teeth in the maxilla were extracted and material for genetic testing for RUNX2, a gene responsible for cleidocranial dysostosis, was collected. The test results did not confirm the diagnosis.

CBCT revealed the presence of Wormian bone - os epipteriucum. A chest radiograph was also taken – it revealed absence of the right clavicle as well as possible existence of a vestigial clavicle on the left side. Basing on comparative analysis of typical features of cleidocranial dysplasia (CCD) and symptoms recorded in clinical and radiological examination, 78% coherence was discovered in the patient. In order to restore masticatory system function, an overdenture prosthesis was planned.
Cleidocranial dysostosis is an extremely rare genetic disorder that can cause a lot of diagnostic problems. On the basis of clinical symptoms, cleidocranial dysostosis was identified, but genetic tests for gene RUNX2, which is responsible for 90% of cases of CCD, did not confirm the initial diagnosis. The patient is among 10% of CCD patients with a causative mutation in another gene.

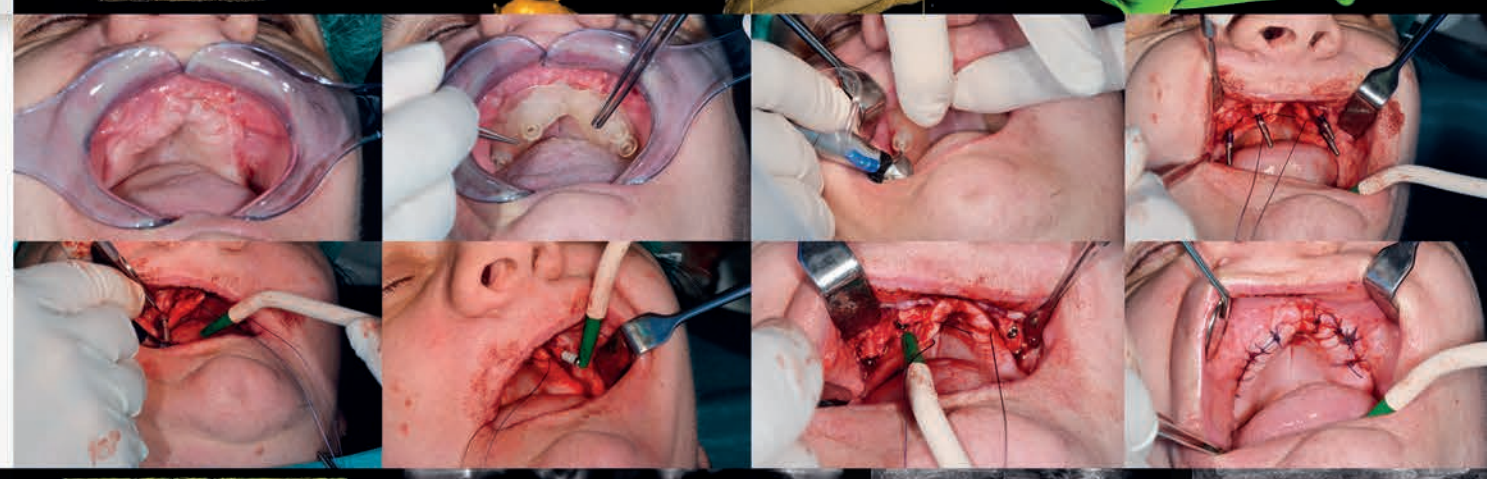
TREATMENT

FIRST SURGERY TOOTH EXTRACTIONS



2 PLANNING IMPLANT POSITION AND GUIDE

3 IMPLANT PLACEMENT



POST-OP X-RAY