

From the case history and a clinical examination, it was established that the boy had craniofacial dysmorphism/dysostosis and hypertelorism with lower positioned and poorly formed ears. He had diagnosis of thickening of the right ventriculus. Karyotype normal. Also presented adactyly of digits II and III manus et pedis, clinodactyly of digit I, and syndactyly of digits IV and V was surgically treated.

By examining the oral cavity, angulus infectiosus oris was diagnosed caused by lowered vertical dimension of occlusion and candidiasis lingue, and consequently the boy was referred to an oral pathologist for appropriate therapy.

Special attention is required when fabricating a complete denture in a child's mouth in order not to compromise any prosthetic principle. Thus, we were faced with several problems including how to find impression trays of adequate size, and how to explain to the patient the procedure of functional movements, achievement of rest position, and the artificial teeth selection.

Because of the small and narrow dental arches we decided for the smallest size of artificial teeth (D28) and reduced occlusion. The artificial teeth were modified and reduced. The second molar took the place of the first molar. With color and shape we tried to imitate deciduous teeth.

After insertion of the complete dentures and control examination, the patient was given an appointment for making new dentures in six months, because of the growth and development of the maxilla and mandible.

## 98.

### Evaluation of Direct and Indirect Methods of Repairing Fractured

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**INTRODUCTION:** The most common technology used in producing a fixed partial denture is firing porcelain to metal. The fracture of veneering material rarely occurs, although it is one of the most striking problems in daily practise.

**PURPOSE:** The purpose of this study was to evaluate the shear bond strength of composite to porcelain and metal by using two intraoral repair methods: direct and indirect.

**MATERIAL AND METHODS:** The direct method was performed by using Ceramic Repair System (Ivoclar,

Lichtenstein) with and without sandblasting. The indirect method involved Co-Jet system (ESPE, Germany) and Rely X ARC (3M, USA) as luting agents. 180 specimens fabricated with feldspathic porcelain and Ni-Cr alloy were divided into 3 groups: CR/0 (direct method of repair without sandblasting), CR/S (direct method of repair with sandblasting) and CJ (indirect method based on Co-Jet system). Each of them was divided into 3 subgroups of 20: porcelain (P), porcelain and metal (P/M) and metal (M). The 10 specimens were then subjected to a shear test in a mechanical testing machine at a crosshead speed of 0.5 mm/min. Mode of failure was recorded. Means and standard deviations of loads were calculated.

**RESULTS:** Tested groups exhibited the following values in megapascals: CR/0-P =  $20.36 \pm 3.05$ ; CR/0-P/M =  $19.45 \pm 3.49$ ; CR/0-M =  $10.86 \pm 4.1$ ; CR/S-P =  $18.21 \pm 2.62$ ; CR/S-P/M =  $19.34 \pm 1.76$ ; CR/S-M =  $9.54 \pm 2.48$ ; CJ-P =  $19.85 \pm 1.94$ ; CJ-P/M =  $19.78 \pm 3.60$ ; CJ-M =  $13.56 \pm 3.82$ . The mean fractured loads were significantly lower for metal subgroups than for porcelain and porcelain/metal subgroups.

**CONCLUSION:** Higher shear bond strength is expected when porcelain was fractured without extensive metal exposure.

## 99.

### Multidisciplinary Therapy of Upper and Lower Jaws Defects

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The aim of this study was to evaluate the possibility of multidisciplinary therapy of injury and other defects of the upper and lower jaws. The imperfections originate primary (cleft, oligodontia) or secondary (cysts, accidents, tumors, inflammation etc.). The incidence in the Czech Republic is criminal in 28 %, sports in 12 %, and home accidents in 9 %. The cleft genetic register includes at the present time more than 4500 families from Bohemia. The multidisciplinary therapy involves the following disciplines: prosthodontics, maxillofacial surgery, plastic surgery, orthodontics, speech pathology, psychology, otorhinolaryngology, genetics, and social work.

Dental care of adult patients is not simple. The five case reports demonstrate the prosthetic treatment of adult patients by multidisciplinary therapy: surgeon, orthodontist and prosthodontist. The aim of our therapy is to receive the integration of orthodontic treatment or surgi-