

Letter to the Editor

Unilateral complex syngnathia of the maxilla, mandible, and zygomatic complex in a newborn baby

Syngnathia is a rare congenital fusion of the hard and soft tissues of the jaw. Early intervention after birth is essential because without it the baby cannot feed, and facial growth and function will be severely affected.¹

A 3-day-old baby boy was referred to the oral and maxillofacial surgery clinic from a peripheral hospital. He presented with his upper and lower gums completely attached and so had to be fed through a nasogastric tube. His history showed that his parents were related by blood, but there was no evidence of syngnathia, systemic disease, trauma, or drug treatment other than routine drugs and analgesics (for example, paracetamol) during pregnancy.

He was referred to the paediatric newborn intensive care clinic for further evaluation, but there were no genetic, congenital, or systemic problems. His chin was deviated to the left, and he had retrusion of the mandible. Intraorally the left side of his maxilla and mandible were fused at gum level (Fig. 1), but there was no cleft palate and no syndrome apparent. We classified the deformity as a Type 2a according to the Laster classification,² and noted that he was malnourished and had a low body weight. His left ascending ramus and the alveolar process of his mandible were fused to the upper alveolar process and zygomatic complex. Maxillofacial computed tomography showed a zygomaticomaxillary fusion of the left side (Fig. 2), and the right temporomandibular joint

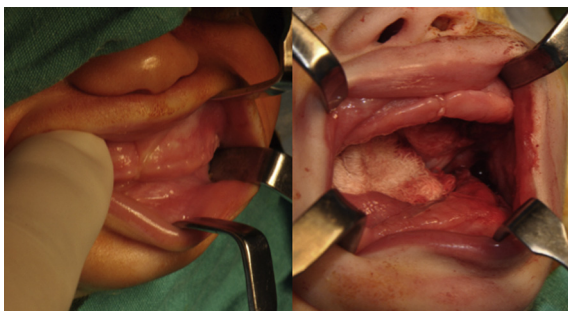


Fig. 1. Preoperative intraoral view of the patient. Maxillary and mandibular arches were fused and feeding was only possible through a nasogastric tube. Intraoperative intraoral view after the removal of the attached bony and soft tissues.



Fig. 2. Zygomaticomaxillary and mandibular bony fusion marked by arrows.

(TMJ) space was clear without any bony fusion. We decided to keep him in hospital until after the operation.

We operated under general anaesthesia when he was 25-days-old, used local anaesthesia (2% lidocaine 0.5 ml with 1/200 000 adrenaline) intravenously into the buccal sulcus of the affected tissue, and made an intraoral incision 15 mm long into the posterior buccal region. We raised a mucoperiosteal flap and excised the bone with a sagittal saw, and used tiny osteotomes between the alveolar processes, mandibular ramus, and zygomaticomaxillary complex. Separation of the bony segments had to be gentle and well-controlled, using minimal force because of his small size and slight build. We achieved a mouth opening of 22 mm (Fig. 1).

Different materials including silicone sheets, blocks, and sterile gauze packs are usually inserted between the bony segments during operation, but they failed in this instance because of occlusal pressure and instability.³ Instead we planned to maintain the opening afterwards with continuous function. We closed the mandibular and maxillary bony segments using the raised mucoperiosteal flaps and 4/0 polyglactin 910 (Vicryl, Ethicon) sutures. His parents were

given instructions on breast and bottle-feeding to maintain nutrition, and jaw exercises to avoid reankylosis.

Early detection and intervention in syngnathia enable function and help maintain quality of life. Strict follow up and physiotherapy will postpone or even avoid reankylosis.

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patient's permission

We obtained the parent's permission to use the information and images in this paper.

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