

#### OBJECTIVE:

A male patient with Tessier No. 4 cleft (unilateral left) presented at 20 days of age. The cleft defect beginning between the cupid bow and oral commissure extended to the ipsilateral orbital floor, skirting the nose and lacrimal duct while passing through the cheek medial to the infraorbital nerve. With the lesser segment disposed 16 mm transversely, the wide gap included an absence of orbital floor and lower eyelid. A deficient midfacial platform caused a severe inferior globe dystopia, superiorly displaced left ala base, and severe vertical shortening between ala-canthus and ala-globe.

#### INTERVENTION:

A modified Latham device applied directional orthopedics to contract the cleft gap and with an eye part added to elevate the dystopic globe. Two different Latham devices used in succession were each applied for 4 weeks. Lastly, a removable plate further repositioned the eye. Each appliance was designed to differentially move the noncleft and cleft segments of the maxilla. Presurgical orthopedics began at 3 weeks lasted 14 weeks. Intraoperatively at 17 weeks, the inferior globe dystopia was effectively reduced, and the cleft gaps were nearly closed and aligned at the orbital floor, cheek, and the alveolus. Respecting the aesthetic units of face became possible with the soft-tissue repair yet were tight enough in the malar region to retract the lower lid.

#### CONCLUSION:

The presurgical directional orthopedic and eye-globe mechanics were sufficient to enable medial canthal repositioning, sustainable correction of orbital distopia, and optimized primary soft-tissue repair. Early result suggests that surgery with presurgical orthopedics is superior to surgery alone.