**Supplementary Material:**

Factors affecting the management of proximal humerus physeal injuries in decreasing order are: degree of displacement, fracture stability and age [1]. Neer Horowitz classified these fractures according to severity of displacement (Supplementary Table S1). In severe displacement, closed reduction attempts in the emergency room or the operating table usually fail due to soft tissue interposition. Additionally, late referral and acute swelling also play an important role. Repetitive manipulation trials should be avoided due to adverse effects on growth plate [1]. In terms of fixation, K-wires, Elastic stable intramedullary nailing (ESIN) and Cannulated Screws are the different fixation method available. Burgos-Flores et al. observed excellent results in displaced proximal humerus fractures fixed with K-wires at a mean of 6.8 year after surgery [2**]. In concurrence with our approach, Dobbs et al. outlined treatment guidelines in patients suffering from severely displaced proximal humerus physeal injury based on age and angulation of the proximal humeral fracture suggesting stabilization with either k-wires or cannulated screws [6].** The proximal humerus has an immense remodelling potential and the mobility of the joint enables it to compensate in case of any residual deformity.

A thorough knowledge, experience and careful radiological assessment for the diagnosis of transphyseal distal humerus fracture dislocation (TDHF) is necessary. A TDHF initially may appear like an elbow dislocation, as the radius and ulna do not align with the humerus, however, the capitellum is still aligned with the radial head, which is especially evident on the AP view [3]. In case of younger patients (<3yrs) where TDHF is commonly reported, it may be difficult to diagnose due to non-ossification of the capitellum, necessitating MRI or arthrogram, nonetheless, it was evident in our patient where capitellum ossification centre was visible (Fig: 2). Pre-operative neurovascular injury is rarely seen in TDHF [3,4].

In our patient, although the displacement was severe in both proximal and distal physis, the child had attained a major part of the skeletal maturity before the time of injury. Pritchett et al. demonstrated that after the age of seven, the proportion between the upper and lower arms did not change appreciably till the skeletal maturity [5]. They showed that in boys, the humerus was 18 per cent of standing height at the age of seven and 20 per cent at the age of seventeen. The humerus was expected to show an increase in length by 1.2 cm in boys and 1.3 cm in girls each year from 7 yrs of age to skeletal maturity [5].

**Legends**

**Supplementary Table S1:** Neer Horowitz Proximal Humeral Epiphyseal Fracture Grading.

**References**

1. Odehouri KT, Gouli JC, Ouattara O, Kouame DB, Dieth AG, Dick KR. Operative treatment of proximal humeral fractures in children: indications and results. Afr J Paediatr Surg. 2008;5(2):84-86. doi:10.4103/0189-6725.44183
2. Burgos-Flores J, Gonzalez-Herranz P, Lopez-Mondejar JA, Ocete-Guzman JG, Amaya-Alarcón S. Fractures of the proximal humeral epiphysis. Int Orthop. 1993;17(1):16-19. doi:10.1007/BF00195216
3. Shrader MW. Pediatric supracondylar fractures and pediatric physeal elbow fractures. Orthop Clin North Am. 2008;39(2):163-v. doi:10.1016/j.ocl.2007.12.005
4. Abe M, Ishizu T, Nagaoka T, Onomura T. Epiphyseal separation of the distal end of the humeral epiphysis: a follow-up note. J Pediatr Orthop. 1995;15(4):426-434. doi:10.1097/01241398-199507000-00003
5. Loraas EK, Schmale GA. Endoscopically aided physeal bar takedown and guided growth for the treatment of angular limb deformity. J Pediatr Orthop B. 2012;21(4):348-351. doi:10.1097/BPB.0b013e328346d308.
6. Dobbs MB, Luhmann SL, Gordon JE, Strecker WB, Schoenecker PL. Severely displaced proximal humeral epiphyseal fractures. J Pediatr Orthop. 2003;23(2):208-215.