Children are one third of our population and all of our future.

Deformity Correction Work

More than 200 limb deformities in the paediatric age group are treated surgically every year. These deformities include congenital deformities, post-traumatic deformities, post-infective and neuromuscular problems like poliomyelitis. All modalities of deformity correction such as open surgery, JESS and UMEX fixators, Ilizarov corrective apparatus and Orthofix limb reconstruction apparatus are routinely used as per the needs of the patient.

Dr J Dheenadhayan runs a special clinic for the limb corrective surgeries requiring Ilizarov and LRS fixators.

Corrective surgeries for club foot and cerebral palsy children formed the bulk of surgeries till 2004. Since then, the use of Ponseti’s method of corrective cast application (with a high success) and the use of Botox injection for cerebral palsy children have reduced the need for surgical procedures.

Many children with deformities requiring surgery are from a poor socio-economic group. Recognizing the needs of these children, the Orthopaedic department has launched the ‘Project Helpline – Help for the Helpless’. Under this project, deformity of any etiology is operated ‘free of cost’. Approximately, 200 such surgeries are done free of cost every year. These include simple procedures like equinus correction to complex spinal deformity correction.
Severe kyphosis following spinal tuberculosis is cosmetically and functionally disabling and increases the risk of late-onset paraplegia. The natural history of spinal tuberculosis in relation to deformity is different in adults and children. 61 children under 15 years of age at the time of diagnosis were followed-up for a period of 15 years to identify the risk factors for deformity progression. In 5 children the deformity resembled a buckling collapse analogous to failure of an axially loaded slender column; the deformity was more than 100 deg and associated with facet dislocation at multiple levels.

Risk factors for the buckling collapse, included a age of less than 7 years at the time of disease, thoracolumbar involvement, loss of more than two vertebral bodies and presence of radiographic spine at risk signs. Children at risk for buckling collapse must be carefully watched and the spine stabilized to avoid a massive increase in deformity.

“Morphological Changes During Growth in Healed Childhood Spinal Tuberculosis” - A 15-year Prospective Study of 61 Children Treated With Ambulatory Chemotherapy


The study analysed the growth changes in the fusion mass and the adjacent normal vertebrae within the arc of deformity in 61 children with spinal tuberculosis. Notable morphological changes occurred in both the kyphosis fusion mass and the uninvolved levels above and below the lesion in children with healed spinal tuberculosis. These changes occurred after complete healing of the disease were responsible for the variability in progression of the deformity during the growth seen in these children. Our results imply that all children with spinal tuberculosis must be followed up regularly till the entire growth potential is completed.

“Congenital pseudarthrosis of the ulna.”

Durga Nagaraju K, Vidyadhara SMS, Dr. Ajoy P Shetty.


A case of congenital pseudarthrosis of the ulna along with generalized neurofibromatosis (type I) was reported. The patient had a good clinical outcome after single-bone forearm reconstruction. In the setting of radial head dislocation following long-standing congenital pseudarthrosis of the ulna, single-bone forearm reconstruction is a viable option. It prevents the loss of hand function by the effective shortening of flexor tendons and spares movements of the forearm.

“Use of Ponseti’s technique in recurrent clubfeet following Kite’s method of correction”

Dr. Durga Nagaraju K , Dr. Vidyadhara SMS, Dr. Ajay P Shetty, Dr. Venkatadass K, Dr. S Rajasekaran.

(Accepted in J Pediatric Orthopedics - B)

Ponseti’s method of treatment for congenital clubfeet has been traditionally described for babies presenting early. Ponseti’s method has proven to be efficient in correcting idiopathic congenital clubfeet irrespective of the severity of the initial deformity. There is no report regarding its use and efficiency in late presentation following failure of Kite’s method. We describe our results with extended use of Ponseti Technique of serial casting in patients with failed Kite’s technique. This is to our knowledge is the first study reporting use of Ponseti technique in such a situation.

“Back Pain in children”

Dr S Rajasekaran,

CME Programme in Paediatrics, G. Kuppuswamy Nadia Memorial Hospital, Coimbatore, Nov 25, 2007.

“Club Foot - "Manipulative Treatment”

“Relapsed, Resistant and Recurrent Club Foot”

Dr S Rajasekaran

IO RAS Update Series 2007- Club Foot, Madurai, 22 July 07

“Club Foot Workshop in 'Club foot-Update'” IORAS, Madurai