



## MUCOPOLYSACCHARIDOSIS - CASE REPORT

### Paediatrics

**Dr. B. Sivasankar** Post Graduate Department of paediatrics Sv medical college tirupathi.

### KEYWORDS

Background Mucopolysaccharidoses are hereditary, progressive diseases caused by mutations of genes coding for lysosomal enzymes needed to degrade glycosaminoglycans (acid mucopolysaccharides), the major GAGs are chondroitin-4 sulphate, heparan sulphate, chondroitin-6-sulphate, dermatan sulphate, keratan sulphate, hyaluronan

The prevalence of MPS-I in 1/1000000 is caused by mutations of the IDUA gene on chromosome 4P16.3 encoding  $\alpha$ -L-iduronidase, mutation analysis was revealed 2 major alleles, W402X, Q70K account for more than half the MPS-I alleles in the white population.

#### Case report :

A newborn born to G3P2L2A1 mother with 20 consanguineous marriage through the normal vaginal delivery presented with respiratory distress on D1 then on D3 of life baby develops recurrent convulsions, then D5 of life baby develops jaundice, O/E facial dysmorphism like large bulging head, low set ears, flat bridged nose, with broad tip, claw like hands, corneal clouding present, on abdominal examination hepatosplenomegaly present, no history of similar complaints in the family.

#### Investigation :

CBC (TLC 16500 increased) RFT, LFT, blood sugars, serum electrolytes normal, CSF – analysis normal, thyroid profile – normal, TMS – Normal 2D Echo – thickening of inter ventricular septum, right ventricular hypertrophy, PAH, (a). X-ray – thick ribs placed horizontally, (b) immature, ovoid configuration of vertebral bodies, neurosonogram – hydrocephalus, urinary GAG's – positive, highly suggestive of mucopolysaccharidosis.



#### Treatment :

Injection antibiotics were given according to local antibiotic sensitivity pattern. Inj. Mitochondrial cocktail anticonvulsants Phenobarbitone were given, nebulisations with adrenaline were given,

#### DISCUSSION :

Coarse face, visceromegaly, corneal clouding X-ray, 2D-Echo findings, urinary high glycosaminoglycan levels are suggestive of mucopolysaccharidosis. Suspecting Hurler disease

#### CONCLUSION :

Prenatal diagnosis for all MPS is carried out on cultured cells from amniotic fluid (or) chorionic villous biopsy, if any family member has