

OUR GUEST EDITOR

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EDITORIAL

This issue highlights some of the recent developments in pediatrics. Gene therapy is a new pharmacological agent in the armamentarium to treat inherited monogenic and acquired disorders such as cancer, infections and neurodegenerative diseases. The liver has been studied as a target organ because many genetic diseases are amenable to gene replacement therapy in hepatocytes. Liver transplantation is an established mode of therapy in children with fulminant hepatic failure and end stage liver disease due to various causes. Renal transplantation is the most effective treatment of advanced chronic renal failure. The exorbitant cost and lack of awareness of organ donation are the limiting factors for both renal and liver transplantation. Stem cell therapy has the potential to provide therapeutic treatment for some developmental and neurodegenerative diseases in childhood like biliary atresia and leukodystrophies. The availability of recombinant growth hormone has enabled the use of growth hormone in the treatment of short stature due to disorders like Turner syndrome, Prader Willi syndrome, small for gestational age children, chronic renal failure and skeletal dysplasias. One of the most significant developments in the management of childhood ITP has been the acceptance of 'Observation only Approach' due to the recognition that intracranial haemorrhage – the most dreaded complication is rare (0.17% and 0.2% reported in two large series by Lilleyman and Kunhe). In neonatology, there has been a dramatic decrease in mortality and morbidity in hyaline membrane disease. Use of antenatal steroids and surfactant therapy in preterm babies has salvaged many babies. Hypothermia and phenobarbital use in hypoxic ischemic encephalopathy are promising interventions to reduce neuronal damage.

Inhaled glucocorticosteroids are the cornerstone of asthma treatment and various professional bodies have formulated guidelines for the management of asthma. Immunization is one of the most cost effective health intervention to reduce morbidity and mortality from vaccine preventable diseases. Recently many new vaccines have been launched. Rotavirus vaccine is >90% protective after two doses given at 4 weeks interval to babies at 6 weeks of age. Inactivated polio vaccine is safe and seroconversion rates of 90-95% are achieved after 2-3 doses given at 6-8 weeks of age. It can be given to children with symptomatic HIV infection and immunodeficiency. Two types of pneumococcal vaccine are currently available, the 23 valent unconjugated polysaccharide vaccine is recommended for children above two years and the 7 valent conjugated vaccine for infants below 2 years of age. The introduction of PCV-7 in childhood vaccine schedule in the US has led to a dramatic decline in invasive pneumococcal disease. A highly efficacious vaccine against human papilloma virus (HPV)-the causative agent of cervical cancer has recently been launched and is recommended in the age group of 9-26 years. Research is a dynamic process and novel forms of treatment are on the horizon.

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