OP-2 : A NORMOGRAM FOR PEAK EXPIRATORY FLOW RATE (PEFR) OF SRI LANKAN TAMIL CHILDREN IN JAFFNA DISTRICT

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Objective: To develop reference norms for PEFR of Sri Lankan Tamil children in Jaffna.

Methodology: This was a population based cross sectional study, targeted to have 60 boys and 60 girls in each age from 6 to 18 years. Measured parameters include age, height, weight and PEFR. Pubertal stage was assessed by self-administered Tanner's scale.

Results: PEFR had a significant ($p<0.001$) correlation with age (0.863), height (0.870) and weight (0.808) in boys. In girls the respective correlations were 0.797, 0.813 and 0.761 which were significant ($p<0.001$). Maximum PEFR was achieved in girls in 16 years whereas in boys it increases up to 18 years. Markedly higher PEFR was observed in boys compared to the girls after the age of 14 years.

Prediction equations for PEFR

Boys

PEFR = 10.62 x Age (years) + 2.7 x Ht (cm) - 265.06

PEFR = 11.32 x Age (years) + 1.69 x Ht (cm) + 1.23 x Wt (kg) - 167.07

Girls

PEFR = 6.5 x Age (years) + 2.2 x Ht (cm) - 175.45

PEFR = 5.92 x Age (years) + 1.7 x Ht (cm) + 0.83 x Wt (kg) - 122.93

A normogram has been developed for PEFR based on age and height. Pubertile stages correlated significantly ($p<0.001$) with age, height, weight and PEFR. PEFR of the present study is lower than the Sri Lankan Sinhalese and almost closer to South Indian values.

Conclusion: This study developed a normogram for interpretation of PEFR in Jaffna children.