OP-02. Spirometric values of healthy Sri Lankan Tamil children aged 14 to 20 years in Northern Province of Sri Lanka: A preliminary results

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Aim:
Ethnic specific reference equations are important in interpreting lung function parameters in clinical practice. There are no data on normal lung function parameters for the Sri Lankan Tamils ethnic group living mainly in the Northern Province of Sri Lanka. The objective is establish reference equations for lung function parameters of Sri Lankan Tamils in Northern Province of Sri Lanka.

Methodology:
A population based descriptive study was carried out in all 5 districts in Northern Province. Healthy subjects (316 males, 232 females) were selected by cluster sampling method. Age, standing height, sitting height, weight, arm span and mid arm circumference, were measured of all subjects. Respiratory function was assessed by a Wright compatible peak expiratory flow meter (PEFR) and by spirometer (Cosmed Micro Quark, Italy).

Results:
Mean, standard deviation of Vital Capacity (VC), Forced Vital Capacity(FVC),Forced Expiratory Volume in the first second(FEV$_1$) FEV1 %and Peak Expiratory Flow Rate(PEFR) were 3.32± 0.7 L,3.44± 0.7L, 3.01 ± 0.6 L,88.2± 5 %, 402± 80 L/sin males. In females the respective parameters were2.58± 0.4 L, 2.69± 0.43 L, 2.44± 0.37L, 90± 5%, 319±50 L/s.
The VC, FVC, FEV$_1$ and PEFR have significant ($p<0.05$) positive correlations with all measured anthropometric characters. Pearson's' correlations were higher in males than females. Step wise multiple regression analysis revealed prediction equations.

Conclusion:
This study generates data on lung function parameters of Sri Lankan Tamil ethnic group which will be useful in clinical practice to determine respiratory dysfunction.

[CR-25] Table 1: prediction equations

Parameter (sex)	Equation
VC (Males)	0.41 height + 0.07 age + 0.013 weight- 3.859
VC (Females)	0.34 height + 0.013 weight- 3.368
FVC (Males)	0.44 height + 0102 age + 0.012 weight- 6.174
FVC (Females)	0.030 height + 0.032 mid arm circumference +0.012 arm span+4.848

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