## Clinical Image



## High-speed video microscopy in a teenage boy with chronic wet cough

A 15 yr old boy<sup>†</sup> presented to the department of Paediatric, G. Kuppuswamy Naidu Memorial Hospital, Coimbatore, Tamil Nadu, India, in May 2020 with chronic wet cough and frequent sinopulmonary infections from infancy. He was born to consanguineous parents at term and had unexplained neonatal respiratory distress. On examination, he had purulent nasal discharge and coarse crackles over the chest. High resolution computerized tomography (HRCT) revealed bronchiectasis involving the right middle lobe and left lower lobe. His primary ciliary dyskinesia rule (PICADAR) score was seven (high) and nasal nitric oxide measured by portable NIOX VERO® (Circassia, Sweden) equipment was very low (14 ppb), indicative of primary ciliary dyskinesia (PCD). Nasal brushings were done at the level of inferior turbinate with cytology brush, and then, the brushings were suspended in medium 199 (Sigma life science, USA). A small amount of the suspension was transferred onto a slide and analyzed using high-speed video microscopy (HSVM). In healthy individuals, HSVM will show coordinated beating of cilia (Video A). HSVM analysis of our patient showed epithelial cell clusters with immotile cilia consistent with PCD (Video b). He is on airway clearance therapy and oral azithromycin prophylaxis and is regularly followed up.

<sup>1</sup>Video available at *ijmr.org.in*.

Neonatal respiratory distress, early-onset persistent wet cough and upper airway disease are early manifestations of PCD in addition to situs inversus. Awareness among neonatologists and paediatricians about the early manifestations of PCD and availability of diagnostic tests are keys to early diagnosis of PCD.

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Conflicts of Interest: None.

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