Kartagener’s Syndrome with Right Bundle Branch Block and Polydactyly


A 18-year-old male presented with history of cough with copious mucopurulent expectoration, fever and dyspnoea for seven days. History of recurrent respiratory tract infections was present since childhood for which he used to take treatment from local dispensary. General physical examination revealed clubbing and polydactyly (Figure 1). Examination of chest revealed extensive bilateral coarse crepitations. On percussion, liver dullness was elicited on left side and tympanic note on right hypochondrium. Apex beat was in the fifth right intercostal space inside midclavicular line with heart sounds heard on right side of chest. Chest X-ray, X-ray of paranasal sinuses, HRCT chest and barium enema confirmed the situs inversus, sinusitis and bronchiectasis (Figure 2). ECG showed features of dextrocardia with intraventricular conduction defect with QRS of 0.12 second and rSR’ configuration in the right precordial leads. Complete right bundle branch block (RBBB) was suspected though no late S waves are seen in I and left precordial leads (Figure 3). The typical pattern of RBBB was apparent on reversing the left and right arm electrodes and obtaining leads over the right precordium from left to right (Figure 4). The changing T in lead I suggests a changing atrial rhythm; the inverted P is expected. The upright P suggests ectopic atrial rhythm. Echocardiogram confirmed dextrocardia. Semen analysis was normal. Saccharin test for mucociliary clearance was 45 minutes (normal <15 minutes). A diagnosis of Kartagener’s syndrome with right bundle branch block and polydactyly was made. Kartagener’s syndrome belongs to the genetic disorder of primary ciliary dyskinesia and is characterized by the triad of sinusitis, bronchiectasis and situs inversus. Polydactyly has not been reported previously with Kartagener’s syndrome and RBBB has been reported with dextrocardia. The importance of early diagnosis and timely management of chest infections lies in the fact that irreversible lung damage and deteriorating lung function can be prevented. This syndrome can bring potential diagnostic dilemma and surgical errors if not recognized clinically.

References


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