A variety of diseases, besides the common Lev-Lenegre’s disease, can cause heart conduction system abnormalities. These include: Acute rheumatic fever, sarcoidosis, connective tissue disorders, neoplasm and bacterial endocarditis. The purpose of the study is to raise awareness of these rare conditions. We present nine adult patients with various rare causes of heart block, who needed pacemaker therapy (temporary or permanent): A 33-year-old female who suffered acute rheumatic fever and transient complete atrioventricular block (CAVB). A 19-year-old soldier with a history of acute rheumatic carditis, who presented with recurrent syncope. Serial ECG recordings demonstrated inappropriate sinus bradycardia and AV dissociation. A 43-year-old female suffering from Wegener granulomatosis, proven by nasal mucosa biopsy and intermittent CAVB. A 68-year-old female, with known metastatic breast cancer with pericardial involvement, presented with syncope and CAVB. A 69-year-old female presented with CAVB was diagnosed as having bacterial endocarditis, with abscess formation along the conduction system. A 43-year-old male, presented with Stokes-Adams syndrome. On chest X-ray, CT and Gallium-scan, there was evidence of hilar lymphadenopathy, he was diagnosed with Sarcoidosis. A 42-year-old man presented with intermittent 2:1 AV Block. The patient had been treated with Radiotherapy to the Mediastinum for Lymphoma 25 years previously, and on a CT scan of his chest, there is evidence of heavy calcifications of the 3 coronary arteries, the root of the Aorta, Aortic valve and Mitral Annulus. A 49-year-old male, presented with CAVB. This young patient has quadriplegia and syringomyelia, following a road accident, 11 years ago. A 43-year-old female presented with symptomatic congentil CAVB, and was treated with pacemaker therapy. We suggest that patients with these disorders should be followed at regular intervals, thus allowing early detection and treatment of their heart conduction disturbances.