Methods A retrospective analysis on clinical manifestations and imaging features was performed in 16 cases with noncompaction of ventricular myocardium.

Results There were not typical clinical manifestations and specificity changes of ECG in patients with noncompaction of ventricular myocardium. 12 cases underwent coronary angiography had no significant coronary stenosis. 10 cases had the heart shadow increased on chest X-ray. The diagnosis of MRI was consistent with of cardiac Doppler ultrasonography in 15 patients, but one case with right ventricular type based on MRI results was difficult to judge. Typical changes of noncompaction of ventricular myocardium were showed in Doppler echocardiography in all patients, which there were 12 cases with left ventricular type, two cases with double ventricular type and one case with right ventricular type.

Conclusions Patients who had heart shadow increased with unknown causes and normal coronary angiography, should consider noncompaction of ventricular myocardium, and heart MRI and Doppler ultrasound can confirm the diagnosis.