Objectives  To investigate the clinical value of echocardiogram in ectopia cordis.

Methods  The retrospective analysis of echocardiographic characteristics were performed in five patients with ectopia cordis. The results derived from echocardiography were compared with CT and operation findings.

Results  Five patients were all diagnosed as ectopia cordis, which all belong to thoraco-abdominal one of which was diagnosed as pentalogy of Cantrell. Besides, echocardiography showed profound intracardiac defects in these five patients. Case 1 showed ectopia cordis (thoraco-abdominal), signal atrium, single ventricle, transposition of the great arteries and pulmonic stenosis. Case 2 displayed ectopia cordis (thoraco-abdominal), atrial situs solitus, ventricle L-loop, hypolastic left ventricle with double outlet left ventricle, mitral valve atresia, ventricular septal defect, atrial septal defect, patent ductus arteriosus and outlet subvalular pulmonary stenosis. Case 3 appeared to be ectopia cordis (thoraco-abdominal), criss-cross heart, ventricular septal defect, atrial septal defect, hypolastic right ventricle, tricuspid atresia, outlet of right ventricle pulmonary valve stenosis, and aortic overriding. Case 4 showed ectopia cordis (thoraco-abdominal) and pseudoaneurysm of right ventricle. Case 5 displayed ectopia cordis (thoraco-abdominal), atrial septal defect, ventricular septal defect (subvalular aortic), double outlet left ventricle, outlet subvalular pulmonary stenosis, and non-compaction of right ventricular myocardium. The results of three cases derived from echocardiography were confirmed by CT and operation findings except that the parents of two patients gave up surgical treatment ultimately.

Conclusions  The transthoracic echocardiography can evaluate ectopia cordis and with intracardiac anomalies accurately, and it also can provide more valuable important information for clinical surgical treatment, it should be first choice in diagnosis of ectopia cordis.