Long-term pacing with passive fixation is feasible in PLSVC. Passive fixation is less aggressive than active fixation; however, complications such as lead displacement, lead fracture, and lead malposition are possible. This case describes the use of a passive fixation ventricular lead placed into the right ventricle for pacing in a patient with persistent left superior vena cava (PLSVC). The patient was an asymptomatic 60-year-old man who presented with symptomatic bradycardia. The diagnosis of PLSVC was made during the procedure, and the lead was placed in the right ventricle by passive fixation. The patient was followed up at 6 months and at 14 months, and stable lead position and normal pacemaker function were recorded. The lead was successfully inserted and produced good long-term pacing and sensing. To best of our knowledge, this is the first reported case of implantation of a passive fixation single chamber pacemaker via persistent left superior vena cava in North East India.

INTRODUCTION
Persistent left superior vena cava (PLSVC) is a rare disorder which is present in 0.1-0.5% of the general population [1-3]. It is the most common disorder of the systemic venous system. PLSVC results when the left anterior cardinal vein fails to obliterate [4]. PLSVC is most frequently found in association with other congenital heart disease and the prevalence goes up to 12.9% [5]. The presence of PLSVC in isolation from other congenital heart disease has no significant implication except for procedural purposes such as right heart catheterization or pacemaker insertion. [6-8]

Case Report
A 60-years old man, presented with symptomatic bradycardia. Patient underwent single chamber Permanent pacemaker Implantation (VVI). Left subclavian vein was punctured. The guide wire was advanced under fluoroscopic guidance. The course of the guide wire was found to be unusual and found to pass over left cardiac shadow. The presence of PLSVC was suspected and later confirmed with the advancement of the guide wire into the right atrium through the coronary venous sinus and then to the inferior vena cava. A 5 Fr pacemaker lead was introduced into the Right Ventricle cavity and the lead was placed in right ventricle by passive fixation when acceptable lead parameters were recorded.

Patient was followed up at 6 months and at 14 months, which showed stable lead position & normal pacemaker function.

ABSTRACT
Persistent left superior vena cava is a rare disorder which is asymptomatic and hence is usually discovered while performing interventions through left subclavian vein. Electrode instability & displacement have been reported in patients who underwent pacemaker Implantation via persistent left superior vena cava. An active – fixation system & sometimes epicardial pacing is necessary to maintain pacing stability. We report the case of a 60 years old man with a persistent left superior Vena cava who required Permanent Pacemaker Implantation. Passive fixation ventricular lead was successfully inserted and produced good long-term pacing & sensing. To best of our knowledge, this is the first reported case of Implantation of a passive fixation single chamber pacemaker via persistent left superior vena cava in North East India.

KEYWORDS
Persistent left superior vena cava (PLSVC) is a rare disorder which is present in 0.1-0.5% of the general population [1-3]. It is the most common disorder of the systemic venous system. PLSVC results when the left anterior cardinal vein fails to obliterate [4]. PLSVC is most frequently found in association with other congenital heart disease and the prevalence goes up to 12.9% [5]. The presence of PLSVC in isolation from other congenital heart disease has no significant implication except for procedural purposes such as right heart catheterization or pacemaker insertion. [6-8]

REFERENCES

CONCLUSION
PLSVC should be suspected whenever a guide wire passes through an unusual course. Ideally active fixation of the lead is preferred in PLSVC considering the possibility of lead instability. Passive fixation ventricular lead can also produce good long-term result in terms of lead stability & pacemaker function.


