**Aims and Objectives:**
1. To evaluate feasibility of identifying Left brachiocephalic vein (LBCV) at 18-34 weeks
2. To evaluate delineation of thymus edges by course of LBCV
3. To evaluate significance of Intrathymic LBCV, absent and abnormally coursing LBCV

**Method:**
A prospective study of 1546 pregnancies with gestation 18 weeks to 34 weeks was carried out for evaluation of LBCV by transabdominal approach using Voluson E8 (GE healthcare, Milwaukee, WI) and WS80A (Samsung Medison Ltd, Korea) ultrasound equipment. The transducer was moved cranially and obliquely left from the 3vessel trachea view to identify LBCV on gray scale and Color Doppler. Normally, the vein is seen traversing the fetal chest to drain into SVC on right, with three aortic branches seen posterior to the vein and thymus and sternum anterior to vein. Cine loops were stored. Any abnormality in its course or size (dilation) were noted. Thymus gland which normally lies anterior to LBCV was delineated and noted if hypoplastic.

**Results:** Identification of LBCV was achieved in 1540 cases out of 1546 (99.61%). Seven (0.45%) cases of Intrathymic non-dilated LBCV were identified. Outcomes of all of these were normal. Two cases, each with persistent left as well as right Superior venacavae (SVC) showed absent transverse LBCV. One case of suspected hypoplastic thymus was identified wherein karyotype revealed Trisomy 21. Additional markers like hypoplastic nasal bone and short femora were present in this case. In one case with Right aortic arch, LBCV followed a normal course, cranial to both major vessels and thymus was normal.

**Conclusion:**
- Visualization of LBCV and thereby thymus is possible in most cases at a high oblique transverse plane of fetal chest.
- LBCV gives an important clue to SVC abnormalities and hypoplastic thymus.
- Intrathymic course of LBCV is a normal variant if isolated and not dilated and do not warrant invasive testing.