

DETECTION OF CONGESTIVE HEART FAILURE BASED ON ULTRASOUND IMAGING

This project intends to provide a non invasive method to detect abnormalities related to change in vein pressure .conventional methods are invasive which involves catheterization with chances of infections to the patient. Though by this method we can obtain the accurate pressure values these often provide discomfort to the patients .however ,using our proposed method can solve this method since it involves no catheterization and is based on ultrasound Images of the patient.

IJV and CCA run side by side along our neck region .IJV pressure can be used to measure CVP which is equal to the pressure inside the right artery .Variations in the IJV pressure value can be used to measure CVP which is equal to the pressure inside the right artery .Variations in the IJV pressure value can be used as indication for several diseases including vein stenosis and

This project uses spokes ellipse algorithm to measure abnormalities in vein pressure .using this algorithm we fit ellipses in the regions of IJV and CCA. This is followed by measuring areas of both these regions and the area of the ellipse fitted in IJV is correlated with changes in vein pressure.