Review Article for Predicting Fluid Responsiveness in Resuscitated Septic Patients

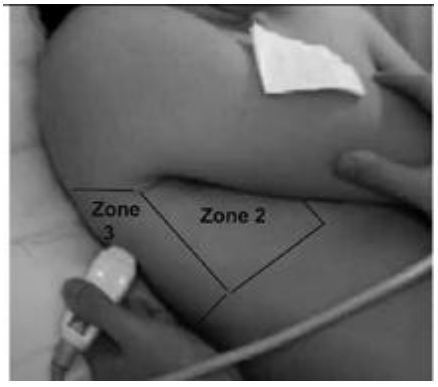
(Durairaj and Schmidt 2008)

Why CVP isn't as challenging as you have been led to believe…

Blue Protocol

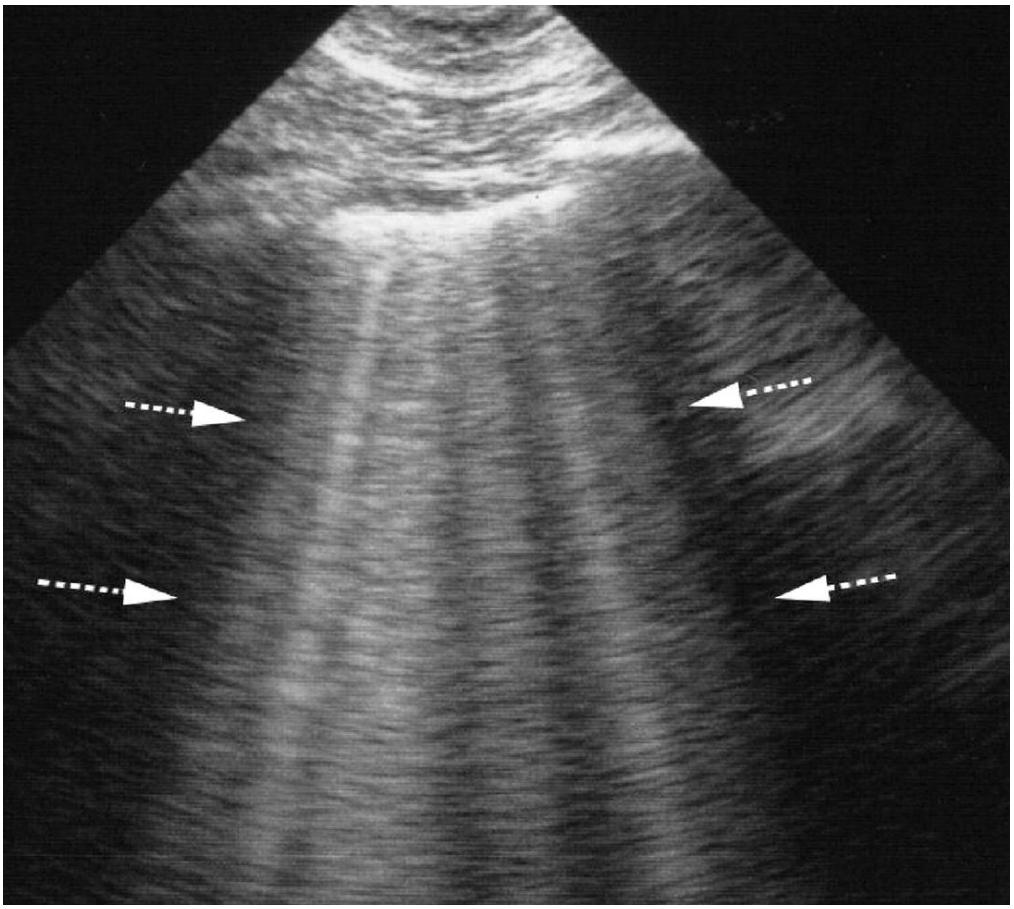
(Lichtenstein and Meziere 2008)

Create by Lichtenstein, one of the foremost experts in lung ultrasound



Scan in zone 2 on both sides of the chest

A-lines represent normal lung



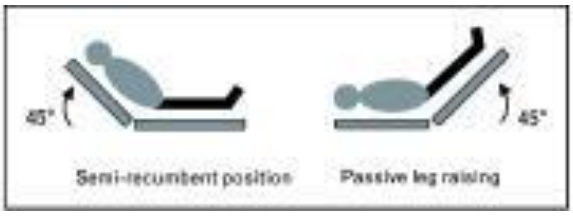
3 or more B-lines in one intercostal space represent interstitial edema

Passive Leg Raise

Passive leg-raise (PLR) transiently increases venous return and will cause an increase in cardiac output patients who are preload responsive. Since this effect is fleeting, it explains why Trendelenberg is an ineffective treatment for hypovolemia.

The main advantage of the PLR approach is that it is reversible and easy to perform in patients breathing spontaneously or on the vent and even in patients with dysrhythmias.

One disadvantage of the technique is in severely hypovolemic patients, the amount of blood volume that the leg raising mobilizes may not be large enough to see a response.(Boulain, Achard et al. 2002; Lafanechere, Pene et al. 2006; Monnet, Rienzo et al. 2006)



>9% change in **pulse pressure**, by PLR predicted volume responsiveness in non-intubated spont breathing patients**. (Preau, Saulnier et al. 2010)**

To know if your passive leg raise is accurate, you need to see the CVP increase by at least 2 mm Hg. If this occurs pulse pressure changes are accurate (8%). If there is not an increase, then you need a stroke volume marker and can't use PP (Lakhal, Ehrmann et al. 2010)

Systematic Review and Meta-Analysis (Cavallaro, Sandroni et al. 2010)

References

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