

**COMPARING THE RATIO OF FEMORAL VEIN DIAMETER TO FEMORAL
ARTERY DIAMETER WITH PULSE PRUSSURE VARIATION AS A
DIAGNOSTIC TOOL FOR FLUID RESPONSIVENESS IN MECHANICALLY
VENTILATED PATIENT**

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Abstract

The femoral vein diameter has a relationship with CVP, we measured the femoral vein diameter to femoral artery diameter ratio in mechanically ventilated patients and investigate its accuracy with pulse pressure variation (PPV). 60 patients aged between 16 and 60 years, with patients were randomly allocated into two groups of each 30 (group (P) PPV group or group (F) FVD/FAD ratio groups):

Group (P): patients were temporarily paralyzed and on fully controlled mechanical ventilation. PPV is calculated directly on Nihon Kohden monitors at baseline. 4ml/kg /h of crystalloids will be infused for 3 hours, then reassess the PPV value

Group (F) : The mean FVD and FAD were measured then ratio was calculated. In group (F), the ratio was measured at baseline then 4 ml/kg/h crystalloid was infused for 3 hours then reassess the ratio.

The outcome was the difference in MAP (mm Hg) after 3 hours of fluids infusion.

in our study, There was a significant difference in mean arterial pressure as, pre-giving fluids, mean MAP was 57.13 ± 2.46 but after giving fluids mean MAP was 77.73 ± 12.51 , it increased by 20.60, p-value<0.001.

There was a significant difference in FVD/FAD ratio pre-giving the patients fluids as, pre-giving, mean ratio was 0.91 ± 0.13 but after giving fluids mean ratio was 1.27 ± 0.16 , it increased by 0.37, p-value<0.001.

Conclusion: FVA/FAD ratio was a good indicator to assess volume status in the post-resuscitation patient who received fluids but should be confirmed by other parameters in hypovolemic –pre-resuscitated -patients