

**Pleth Variability Index Combined with Passive Leg Raising-Induced Pulse Pressure Variation to Detect Hypovolemia in Spontaneously Breathing Patients.**

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The combination of Pleth Variability Index (PVI) and passive leg raising (PLR)-induced pulse pressure variation may help to diagnose hypovolemia in spontaneously breathing patients.

In 44 subjects, PVI and Pulse Pressure (PP) variation after PLR were measured before and after induced hypovolemia (blood gift or hemodialysis session).

PVI values were significantly greater after hemodialysis session or blood gift (22% vs 18%,  $P = 0.03$ ); in contrast PP variation did not change significantly (7% vs 4%,  $P = 0.49$ ). The accuracy of these parameters or of their combination to identify the "after hypovolemia induction" period was weak. In spontaneous ventilation, PVI value is greater after induced hypovolemia, whereas PP variation does not change significantly.

The combination of PVI and PLR does not improve the accuracy of the detection of induced hypovolemia.