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**Trendelenburg Position, Hypotension, and Hemodialysis**

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Trendelenburg position is a mainstay in most hemodialysis procedure manuals for treating intradialytic hypotension. With so much blood out of the patient's body and with ultrafiltration over 3-4 hours, it is common for hemodialysis patients to become hypotensive. Patients are placed in Trendelenburg position with the belief that it causes increased cardiac filling and increased blood pressure. Hypotension treatment includes stopping or reducing the rate of ultrafiltration, the Trendelenburg position, decreasing blood flow rate, and restoring intravascular volume. Patients are kept in this position for 30 minutes up to several hours until the blood pressure increases and the patient feels better.

A review of published evidence indicates Trendelenburg may be related to numerous deleterious side effects, including: anxiety, restlessness, dyspnea, hypoventilation, atelectasis, altered ventilation/perfusion ratios, increased intracranial pressure, impaired venous return to the heart, further decreased cardiac output/hypotension, and gastric content aspiration. Increased occurrences of adverse consequences of Trendelenburg position have been found in patients who are obese and/or have compromised right ventricular ejection fraction, pulmonary disorders, or head injury. With hemodialysis, patients commonly have left ventricular hypertrophy, cardiac dysfunction, arrhythmia, reduced blood filling the heart, stroke reduction, and hypotension; perhaps the deleterious effects of Trendelenburg position outweigh its potential benefits.

Trendelenburg position should continue to be considered in the treatment of intradialytic hypotension, however, used judiciously and for as short of a duration as possible. Efficacy may be limited by potential side effects. Research regarding the role of Trendelenburg position in the management of intradialytic hypotension and an increase awareness of potential problems associated with this position need to be addressed in hemodialysis patients. Before you automatically pop the dialysis chair or bed into Trendelenburg position, stop and consider the impact of this position to the patient as part of your assessment.

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