

Central Hemodynamics During Hemodialysis

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Objectives

1. Current situation with Cardiovascular disease in ESRD patients.
2. Methodology of cardiac output measurements during hemodialysis.
3. Relationship between cardiac output and access flow.
4. Central blood volume as a criterion of patient stability during hemodialysis.
5. Central hemodynamic profiling during hemodialysis.

Content Description

Cardiovascular disease (CVD) is the leading cause of morbidity and mortality in patients with End Stage Renal Disease (ESRD). CVD mortality rates within the ESRD population are approximately 10 to 20 times that of the general popu-

lation. ESRD patients are prone to sudden death, stroke, and myocardial infarction between dialysis sessions. The methodology of dilution methods to measure cardiac output and other parameters will be explained. Summary of the body of literature focused on the relationship between cardiac output and vascular access flow will be presented. The talk will address also the following clinical situations.

- prolonged high levels of access flow which places an abnormal stress on the heart
- low cardiac index placing patients at risk for cardiovascular complications and heart failure
- decrease in cardiac index during hemodialysis to dangerously low levels due to inaccurate dry weight estimation and/or inadequate medication
- Relationship of sudden death phenomena and cardiac index in ESRD patients

The presentation will be illustrated with multiple clinical based cases.