STRATEGIES OF CPB FOR PATIENT WITH SICKLE CELL ANEMIA

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**Introduction:** Sickle Cell anemia is a group of inherited red blood cell disorders. Sickle red blood cells become hard, sticky and shaped like sickles used to cut wheat. When these hard and pointed red cells go through the small blood tube, they clog the flow and break apart. This can cause pain, damage and a low blood count, or anemia. Sickle cell crisis increases during cardiopulmonary bypass, certain methods and precautions are required to decrease this incidence. The aim of this study is discussing the outcome of the used technique compared to traditional management.

**Materials and Methods:** Maintaining adequate oxygen saturation plus avoiding acidosis at all times are of prime importance. This is particularly true of venous blood where sickling is most likely to occur. Hypoperfusion and hypothermia were avoided. We used centrifugal pumps to avoid damage to erythrocytes. Suction was kept to a minimum and washing out any hemoglobin using crystalloid cardioplegia or blood cardioplegia.

**Results:** 30 adult and pediatric Cardiac patients were included in this multicentral study. Data were collected after standardization of the technique. A statistical significance was encountered in this study.

**Conclusion:** Sickle cell crisis is a dangerous problem; we found that modifying our way as described to decrease this incidence had resulted in a better outcome.