

## P42

### RARE COMPLICATION OF HAEMOPERICARDIUM WITH TAMPONADE DURING SCHEDULED HICKMAN LINE INSERTION

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We present a rare but serious complication of cardiac tamponade occurring during placement of a tunnelled Hickman line in an infant.

#### **Description:**

An eight month old infant was admitted for planned placement of a tunnelled Hickman line, to provide long term intravenous access for management of Carbamoyl Phosphate Synthetase I deficiency; a urea cycle disorder. General anaesthesia was induced uneventfully with placement of a peripheral venous cannula and an endotracheal tube, using sevoflurane for maintenance. A left sided tunnelled internal jugular vein hickman line was placed, with the final steps of lumen flushing about to occur. The end tidal carbon dioxide trace began to fall in a step wise incremental fashion with bradycardia noted and the non-invasive blood pressure unable to read. Intravenous fluid boluses and peripheral adrenaline were administered to support the child, with an unclear cause for the deterioration in a previously stable patient. Fifteen minutes after the presence of cardiovascular instability, a call to the on call cardiologist was made to provide help in managing the child and diagnosing the cause of cardiovascular instability. Transthoracic echocardiography quickly diagnosed the presence of significant pericardial effusion with tamponade. Emergency pericardiocentesis was subsequently performed and a pericardial drain left in situ for forty eight hours. The child emerged from anaesthesia uneventfully following effusion drainage and was discharged home on the third post operative day without any long term complications. Appropriate clinical governance measures were followed, following the incident, with a rapid incident triage meeting taking place within seventy two hours.

#### **Discussion:**

The occurrence of intraoperative pericardial tamponade is a rare but life threatening complication of tunnelled Hickman line insertion. Whilst haemopericardium is a recognised complication during cardiac catheterisation, this is the first case in our institution to occur outside of the cardiac catheter laboratory. Cardiac tamponade induced by Hickman catheter placement is described in the literature and is associated with significant mortality (1). Time from catheter placement to effusion diagnosis can range from four hours to seven days. Our patient had prompt diagnosis and treatment and fortunately had a good outcome. We present this case report to highlight the rare but life threatening complication of pericardial tamponade following tunnelled Hickman line placement.

#### **Acknowledgements:**

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Mr Robin Garrett-Cox, Consultant General Surgeon, Bristol Royal Hospital for Children.

## Reference

1. Cevik M & Ereğ E. Hickman catheter-induced cardiac tamponade-related cardiac perforation management by mediastinotomy in children and a review of the literature. *Trauma Case Reports* 32 (2021) 100436