

3.2.1 Clinical Governance report - CTAG(16)H2

In a six month period, September 2015 to March 2016, there were 49 reported Incidents where the Heart was mentioned as one of the Key words. This is largely in line with other recent 6 monthly periods

On analysis, 11 Incidents were unrelated to the Heart

Of the remaining 38 Incidents, 17 were related to retrieval. Across the board, about 40% of all Incidents relate to retrieval, so the fraction within heart is perhaps slightly higher

Pulmonary Valve Damage

The most notable trend is the high rate of reported damage to the pulmonary valve when the heart was not being used and valves were being despatched to Tissue Banks. In this 6 month period there were no less than 10 reported instances of pulmonary valve damage

- 2 were damaged by abdominal teams, when there was no CT team present
- Some appear to relate only to a “suture” in the pulmonary artery
- In two the explanation was that a longer length of PA was required for static EVLP, and in a third, the use of the OCS lung Machine

Steps taken

- 1) Discussions were had with a representative of the tissue banks, to explain that there might well be a tied suture in the pulmonary artery, at the cannulation site, if the lungs had been flushed. This should not exclude use of the homograft
- 2) Abdominal teams, who often retrieve the heart for valves when no CT team is present, were reminded, through the Clinical Retrieval Forum, of the importance of cutting the PA at or even beyond, the bifurcation
- 3) A standard approach for any form of EVLP should be to use a length of aorta to facilitate donor lung connection
- 4) Retrieval teams are reminded of the agreed approach of cutting the pulmonary artery at it's bifurcation, as in the Appendix. This approach was agreed some time ago, and yet is circulated at each CTAG

Other Notable Incidents

Paediatric Heart Retrieval by an Adult Team

A heart was retrieved from a paediatric donor weighing just on 30 Kg, by an adult team, as is the current agreement. There was damage to the heart, which was repaired at the recipient centre, with a good outcome. Major concerns were expressed by both the implanting surgeon and the adult retrieval lead about the skill and training of the retrieval surgeon. This Incident was escalated to NRG, with a suggestion that CTAG increases the size threshold for sending a paediatric retrieval team to 40KG, or perhaps more appropriately, a height threshold. The change to 40Kg would result in the designated paediatric teams doing perhaps 2 more retrievals per year. CTAG are asked to agree to this change

Massive Haemorrhage from misplaced Swan-Ganz Catheter Sheath

In a stable donor, there were difficulties in placing the Swan-Ganz catheter for measurement of cardiac output. The retrieval surgeon made a number of attempts, and then, without ultrasound guidance, appeared to have successfully cannulated the internal jugular vein. The donor then became hypotensive, and a rapid retrieval of abdominal organs only was performed. On opening the chest, there was a massive haemothorax consequent on a subclavian artery tear

Retrieval teams are reminded of the importance of standard approaches to central vein cannulation

Delay in departure of packed heart because of inability of abdominal team to procure spleen and lymph nodes

After routine retrieval, the heart spent an extra 15 minutes in the donor theatre whilst waiting for the abdominal team, who were doing a difficult extraction, to take a piece of spleen and lymph nodes for future tissue typing. This was also taken to NRG, where there was acceptance that the abdo teams should be requested to take these specimen during the perfusion phase of their extraction

Lessons from Lung Incidents

The £10k X-ray

A DCD lung had been turned down on history by the local centre, but then accepted by the final centre on the offering sequence. The retrieval team was despatched, by air because of the distance involved. On arrival, the retrieval surgeon gave the history and importantly, sent a photo (by mobile phone) of the X-ray to the recipient surgeon. On viewing the X-ray, he immediately declined the lungs

In the 21st Century, it required a surgeon to travel 300 miles to take a picture, at a transport and team cost of in excess of £10,000.

This Incident was widely discussed. All SNOD's are equipped with an iPad which can take photos, and many have mobile phones similarly equipped. NHSBT have a document setting out the data protection requirements for transmission of images, and have taken a realistic approach, putting patient safety first. There is no bar to sending such images, as long as donor anonymity is respected, a secure (eg Trust email or NHS.net address) email address is used and the recipient undertakes to delete the images at the earliest stage.

This principle is important for X-rays, but extends to images of other useful information, such as ECG's, Echo's etc

SNOD's and Scouts should be encouraged to send images if they are likely to affect acceptance or recipient selection