2018 Oxygenator

Permission to print: Yes
Incident type: Good Catch No Harm Incident
Type of incident: Equipment
Category: Oxygenator
Description: There was an unexplained resistance across the oxygenator (Sorin Inspire 6 non-integrated) 30 minutes during bypass [using Sorin S5] a Pump error fault appeared (\(^\_\)). The silicone replacement pump boot was distending at the pump outlet indicating severe resistance across the oxygenator. Trans membrane pressure is not monitored. The ACT was 800 and the line pressure measured proximal to the arterial filter (20 micron) was normal and unchanged precluding coagulation throughout the circuit. Notified surgeon / anaesthetist of the problem. Called for colleagues to look into the fault / discuss the issue. Patient was at 33 degrees. Flows were dropped to 1.8-2.0 index - SvO2, MAPs and blood gases were adequately maintained. Patient was haemodiluted from Hct of 0.38 to 0.26 to reduce blood viscosity. An oxygenator change-out kit and spare arterial pump were brought into the operating room as precautionary measures. Further discussed problem with the surgeon and it was decided that it's safe enough to continue bypass without changing the oxygenator as all patient parameters [SvO2, acid-base and ABGs] were within normal limits at reduced flows. With one distal anastomosis remaining if the problem exacerbated the plan on removal of the cross clamp was to further reduce flow and maintain partial CPB (heart ejecting) or to wean from CPB and complete proximals off bypass. Unexpectedly the problem was alleviated upon rewarming of the patient. The oxygenator was kept at the end of the case for further testing.

GOOD CATCH - what went well
- The technology of the Stockert S5 heart lung machine to recognise the problem.
- Fantastic back-up by the perfusion department

Preventive actions
- As above: review and assessment of the problem with staged management plan including: peer review, for adequacy of perfusion at reduced flows, early termination of CPB and oxygenator changeout

Manufacturer advised: Yes
Discussed with team: Yes
Ext Authority Advised: No
Hospital incident filed: No
Commentary
- This would appear to have been a case of cryofibrinogen that has not been previously reported to PIRS but anecdotally not infrequently encountered in some jurisdictions. PIRS Ed