This retrospective study assessed the success rate and associated complications of the Aspirex device in patients with occluded renal dialysis access fistulae.

**AIMS**

- Arterio-venous fistulae are the preferred access site for renal replacement therapy (RRT)/dialysis but are susceptible to thrombosis.
- Pharmacological and surgical interventions to salvage thrombotic occluded fistulae have shown similar results. Percutaneous mechanical thrombectomy (PMT) was seen as a safer alternative with shorter hospital stay.
- The Aspirex device is an over-the -wire catheter with a rotating helix at the end that breaks up and aspirates the thrombus through a window.

**METHODS**

- Data from the renal and radiology units has been compiled for patients that have been treated with PMT procedures between 2014 and 2017.
- A keyword search on the CV5 renal database was performed.
- Only patients treated with the Aspirex device were included in the study.
- 47 procedures were analysed for 43 patients (28 men, median age 72).
- 31 autologous arterio-venous fistulae and 16 synthetic arterio-venous grafts.
- Primary assisted patency rates were 67%, 53% and 17% after 30, 90 and 365 days respectively.
- Median interval between procedure date and date of last successful fistula usage post-operatively was 45.5 days.
- Surgical/radiological re-interventions were necessary in 34% of salvaged fistulae.
- Initial major complications were noted in 7 procedures (15%). These included axillary vein tears, brachial venous rupture, distal embolisation, broken wire, fistula rupture and a mechanical fault.

**RESULTS**

- Post PMT fistula patency rates after:
  - 30 days: 67%
  - 90 days: 53%
  - 365 days: 17%

**CONCLUSION**

The high complication and re-intervention rates, along with the significant financial burden, associated with Aspirex PMT procedures cast considerable doubt over its reliability and effectiveness. This makes it a potentially unsustainable service in the long term.