Should age determine if a patient is a suitable candidate for arteriovenous fistula (AVF) formation?

H Nanapragasam¹, A Ahmad², J Crane³

- 1. Royal Brompton & Harefield NHS Foundation Trust
- 2. Imperial College School of Medicine
- 3. Imperial College Healthcare Trust

Introduction

With an increasing elderly population, more older patients with end stage renal failure are requiring vascular access for dialysis. Studies have produced differing results on whether age affects the success of an AVF. Our aim was to assess if age should be a factor in determining suitability for an AVF.

Methods

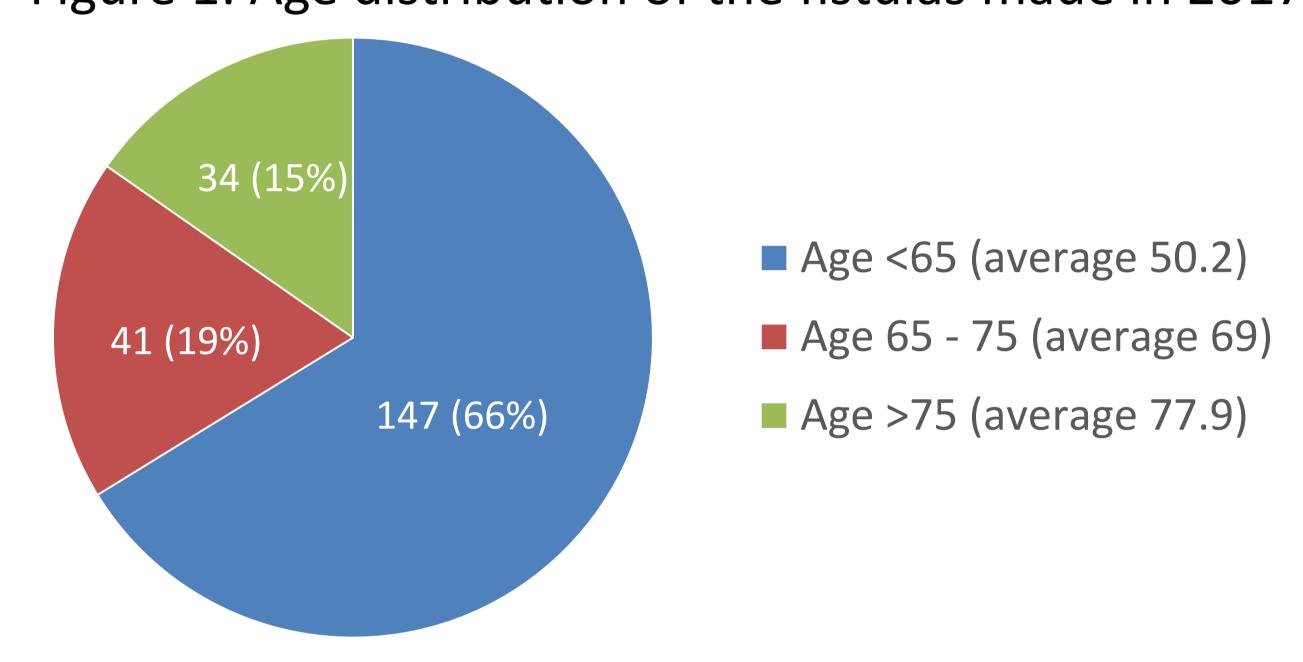
A retrospective analysis of data from patients with an AVF created from January 1st 2017 to January 1st 2018 at a tertiary renal surgery centre was performed. The outcomes were assessed as: successful maturation, requirement for fistuloplasty, requirement for intervention and failure of the AVF.

Results

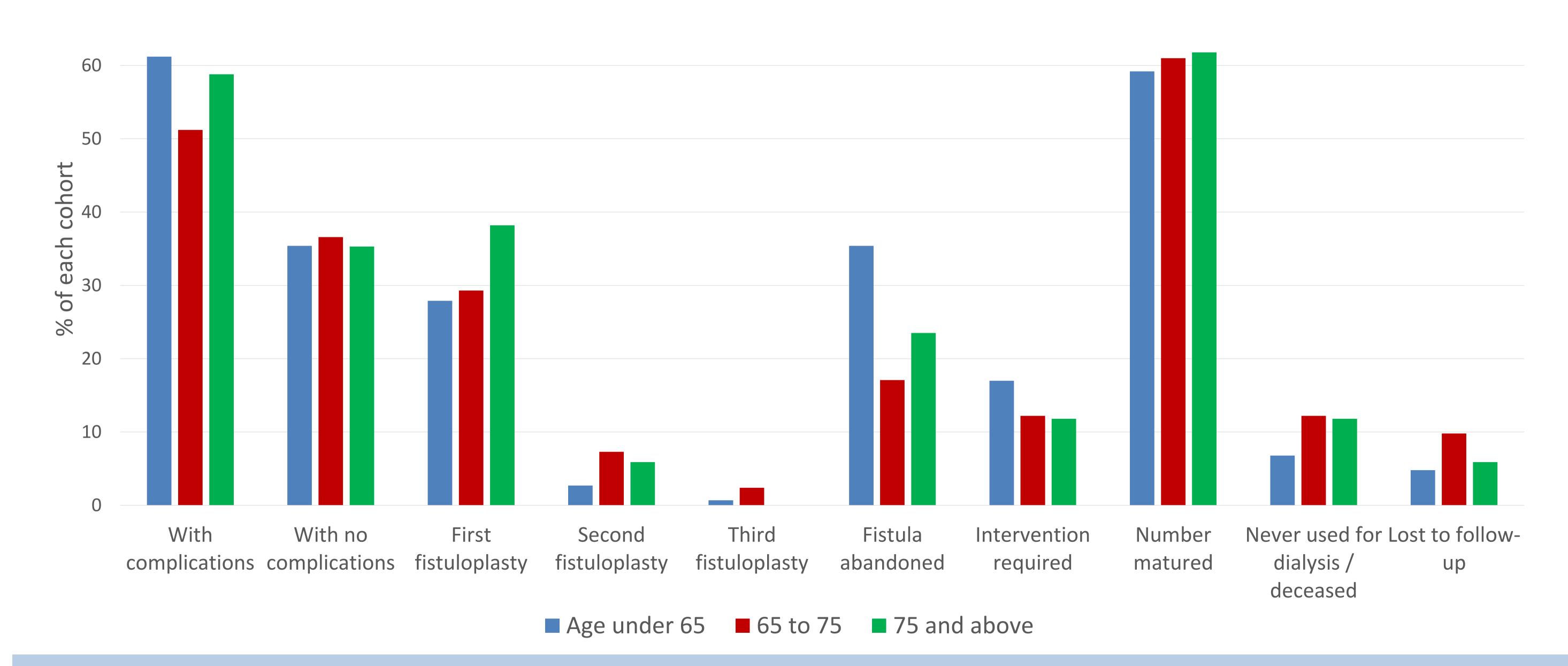
In total, 222 patients had a fistula formed in 2017. 147 were under 65 (66.2%), 41 were aged 65 to 75 years old (18.5 %) and 34 were aged 75 and above (15.3 %).

Overall, there was a better maturation rate in the older two cohorts. In addition, they had a lower failure rate, intervention rate and 1st and 3rd fistuloplasty rate than the younger cohort.

Figure 1: Age distribution of the fistulas made in 2017







Conclusions

This study suggests age alone does not contribute to negative outcomes and thus, by itself, should not be a determining factor for suitability for formation of an AVF. However, other factors that may contribute to outcome success were not accounted for, such as comorbidities. In addition, the sample size of patients in the 65 and over age groups was smaller, totalling to only 34% of all fistulas made.