

# Memokath 051 in relieving refractory ureteric obstruction

## A Retrospective Cohort Study

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### Aim:

To evaluate outcomes of Memokath (MMK-051) in patients with refractory ureteric obstruction.

### Introduction:

The number of patients dependant on long-term DJ stents for refractory ureteric obstruction is on the rise every year. It increases the cost and demand on services for regular stent change. DJ stent's detrimental effect on patients quality of life is well known[1].

### Methods:

Retrospective analysis of a prospective database of MMK-051 insertions between February 2020 to February 2021. Patient with minimum follow-up 6 months were included for the review.

### Criteria:

#### Inclusion

- Benign or malignant Ureteric obstruction
- Dependent on DJ stent for management of ureteric obstruction.
- Life expectancy > 1year
- Unsuitable/unwilling for reconstructive procedures

#### Exclusion

- Patient younger than 18 years
- Primary PUJ obstruction or mega-ureter on stent
- Patient not stent dependant
- Life expectancy < 1 year
- Active stone former
- Diseases that require ureteric instrumentation for the treatment

Patients were followed up for stent position and patency with EGFR, MAG3, ultrasound, X-ray, and CT based on the function of the renal unit.

### Outcomes measured

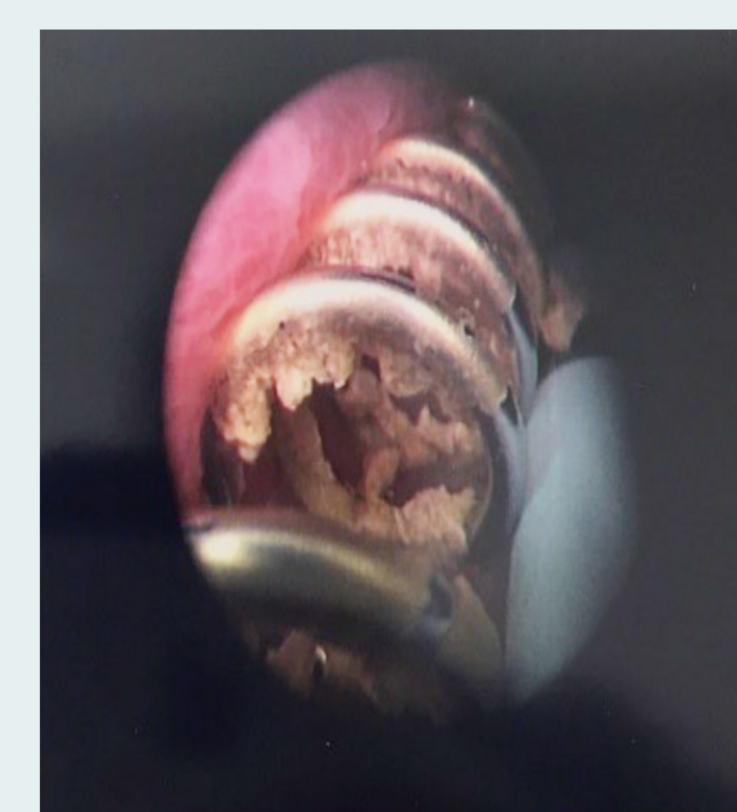
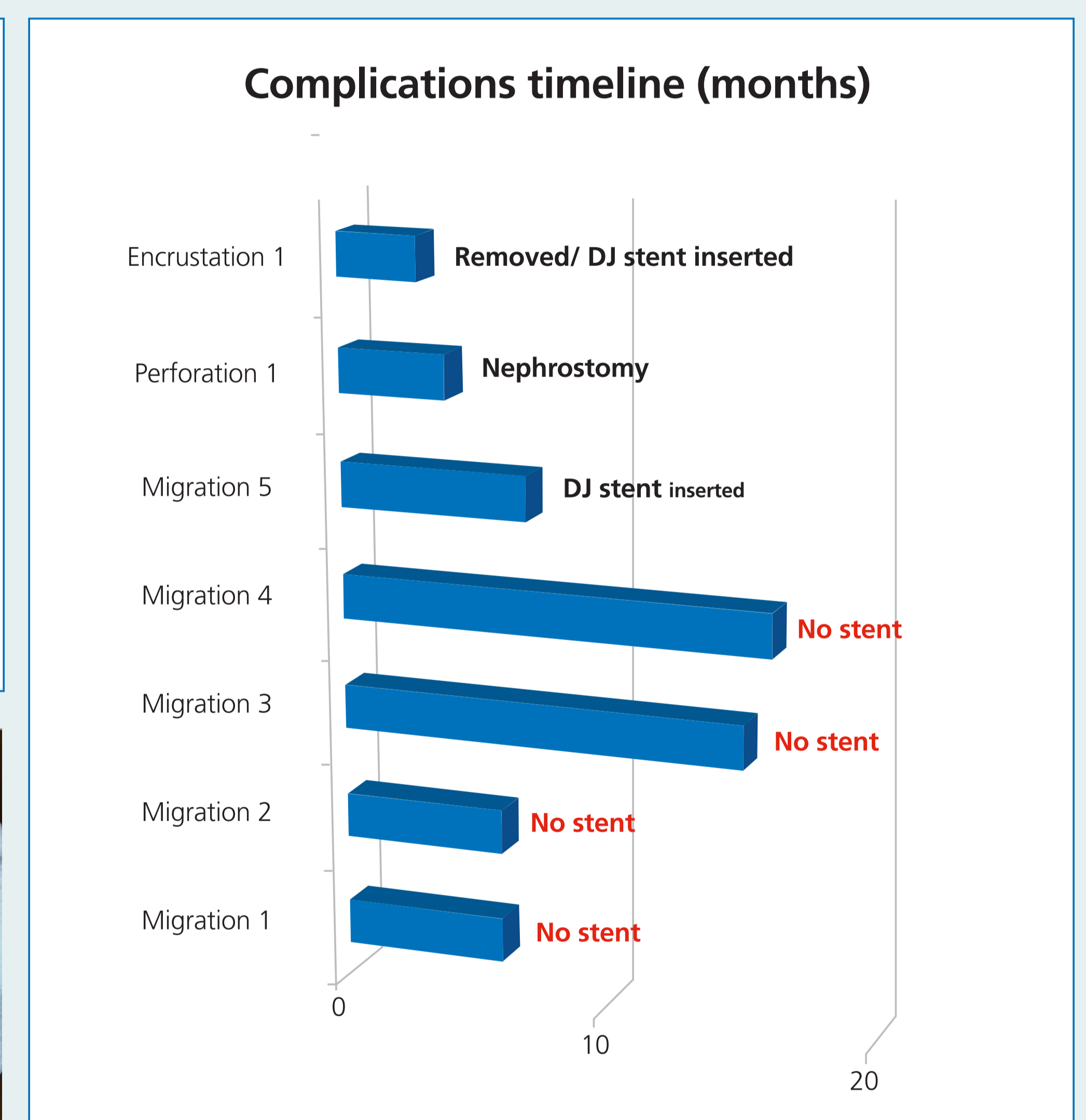
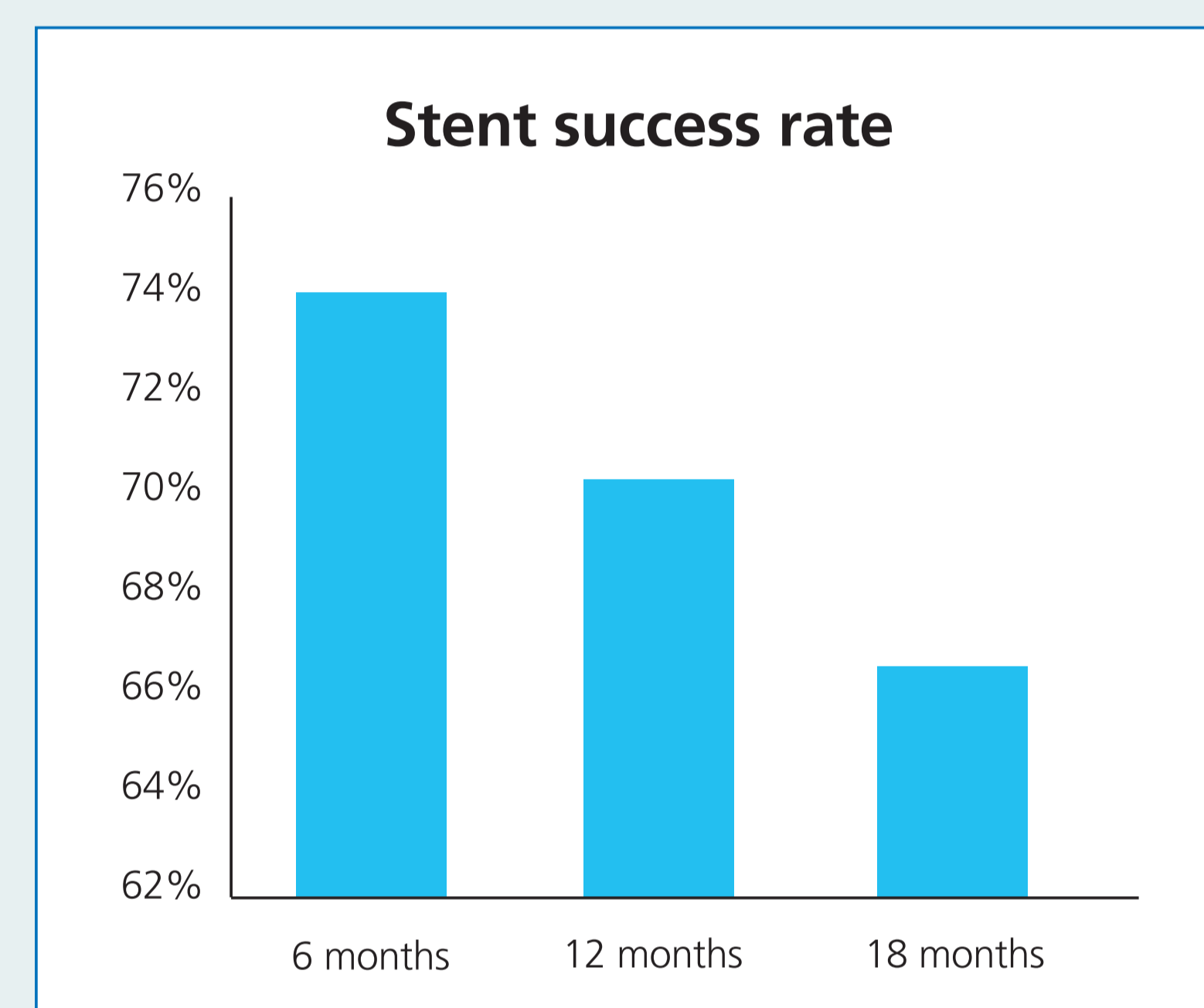
- 1) Stent function
- 2) Migration rates
- 3) Other adverse events

#### References:

1. Lingeman JE, Preminger GM, Goldfischer ER, Krambeck AE. Assessing the Impact of Ureteral Stent Design on Patient Comfort. J Urol. 2009;181(6):2581–2587. doi:10.1016/j.juro.2009.02.019.
2. Maan Z, Patel D, Moraitis K, et al. Comparison of stentrelated symptoms between conventional Double-J stents and a new-generation thermoexpandable segmental metallic stent: A validated-questionnaire-based study. J Endourol 2010;24:589.
3. Memokath-051 stent for ureteric obstruction, Medical technologies guidance [MTG35] Published: 01February2018. <https://www.nice.org.uk/guidance/mtg35/chapter/3-Evidence>.

### Results

- 27 consecutive MMK-051 were inserted in 21 patients
- 15 unilateral and 6 bilateral stents were inserted in 13 women and 8 men. Nine had benign and 12 had malignant etiology
- The median follow-up was 12.4 months (range 7-19 months)
- 6, 12 and 18 month stent function rates were 74%, 70.5%, 66.6% respectively
- There were 5 (18.5%) migrations, of which 4 did not require reinsertion of stent
- There were 1 encrustation, 1 perforation and 1 urosepsis
- Mean time to delayed complication - 8.14 months



Encrusted Memokath



MMK-051 with RGP

### Discussion:

MMK-051 is a metallic stent (Nickel-Titanium alloy). According to the manufacturer of the stent and the National Institute for health and care excellence (NICE) recommendation, there is no time limit for planned stent change. This means that patients need not have stent change periodically and hence can reduce hospital visits and procedures under anaesthesia. This stent resides within the ureter and hence it is not expected to produce stent symptoms. It improves quality of life and reduces hospital visits[2]. The reduced number of stent changes and hospital visits make it cost-neutral or cost-effective at approximately 2 years[3].

### Conclusion

Our pilot study suggests that MMK-051 has a role in the management of refractory ureteric obstruction. Further research with long term follow-up and quality of life assessment is required.