Clinical Article Summary

# Early and Late Complications of Double Pigtail Ureteral Stent

Rocco Damiano
Andrea Oliva
Ciro Esposito
Marco De Sio
Riccardo Autorino
Massimo D'Armiento

## Abstract

The study analyzes the early and late complications of indwelling ureteral stents in patients with urolithiasis. The most common complications were respectively stent discomfort and encrustation.

**Objectives:** To analyze the early and late complications of indwelling ureteral stents in a series of 146 patients with nephroureteral lithiasis.

**Materials and Methods:** 146 patients with obstructing nephrolithiasis were treated for urinary diversion with double pigtail ureteral stent before extracorporeal shock-wave lithotripsy (ESWL) and following ureterorenoscopic treatment of lithiasis. All patients were scheduled for stent removal or replacement at specific 3 month intervals until stone-free status was achieved.

**Results:** Early complications during the first 4 weeks after stent insertion were stent discomfort (37.6%), irritative bladder symptoms (18.8%), hematuria (18.1%), bacteriuria (15.2%), fever > 104 degrees F (12.3%), and flank pain (25.3%); late complications included hydronephrosis (5.7%), and stent migration (9.5%), encrustation (21.6%), fragmentation (1.9%), and breakage (1.3%).

**Conclusion:** Ureteral stents have proven to be an invaluable tool for endourologists. Morbidity is minimal for up to three months but longer indwelling times are associated with an increasing frequency of incrustation, infections, secondary stone formation, and obstruction of the stented tract.

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## Coloplast Key Takeaways

- The most frequent early complication during the first 4 weeks after stent insertion was stent discomfort (37.6%).
- Stent discomfort is the most frequent early complication, therefore, a stent that minimizes discomfort should be considered when selecting a stent.
- Longer indwelling times are associated with additional complications. The most common late complication at 3 months after stent insertion was encrustation (21.6%).
- The frequency and extent of encrustation increases with length of indwelling time.
- Encrustation is the most common late complication, therefore, a stent that minimizes encrustation should be considered when selecting a stent.

**Double Loop Ureteral Stent Kit**
**BRIEF STATEMENT**

**Indications**

Drainage of the upper urinary tract over fistulas or ureteral obstacles. (e.g: periureteral tumour) Cicatrisation stent.

**Contraindications**

Untreated progressive infection of the upper urinary tract.

These devices may particularly contain traces of silicone resulting from the manufacturing process. The evaluation of the allergic background of a patient is the healthcare professional's responsibility.

**Warnings and Precautions**

These types of kits must only be used by trained and experienced professionals.

Reuse of this single use product may create a potential risk to the user.

Reprocessing, cleaning, disinfection and sterilization may compromise product characteristics which in turn create an additional risk of physical harm to or infection of the patient.

**Potential Complications**

The following events have been reported although their occurrence greatly depends on patients' medical conditions: infection, encrustation, obstruction, rupture, migration, bladder irritation symptoms, pain, hematuria, erosion. Some events may be related to this procedure, amongst which those related to the guidewire: ureteral perforation, or burns when in contact with an electrosurgical equipment.

**Advice To The Patient**

Patients should be educated on their implanted stent and the need for a regular monitoring. They should be advised to inform the attending physician immediately if any anomaly or dysfunction is noted.

The risks and benefits of using Double Loop Ureteral Stent Kits should be considered in patients.

The information provided is not comprehensive with regard to product risks. For a comprehensive listing of indications, contraindications, warnings, precautions, and adverse events refer to the product's Instructions for Use. Alternatively, you may contact a Coloplast representative at 1-800-258-3476 and/or visit the company website at www.coloplast.com.

**Caution:** Federal law (USA) restricts this device to sale by or on the order of a physician.

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Coloplast Corp. Minneapolis, MN 55411 / Interventional Urology Surgical Support 1-800-258-3476



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