Device for Preventing Injury During Ureteral Access Sheath Deployment

Tech ID: 34121 / UC Case 2021-717-0

BRIEF DESCRIPTION

A revolutionary handheld force and load sensing device designed to measure and alert surgeons of critical force thresholds during surgical device deployment during flexible ureteroscopy, enhancing patient safety and surgical outcomes.

FULL DESCRIPTION

This technology encompasses a handheld load sensing device equipped with a force sensor, input/output interface, and an adjustable attachment mechanism for surgical devices. It's engineered to provide real-time force measurements during the deployment of surgical devices, such as a ureteral access sheath and catheters, offering visual, auditory, or tactile alerts at predefined force thresholds. This innovation aims to minimize the risk of ureteral injury by enabling precise force application, thereby improving surgical safety and efficiency.

SUGGESTED USES

- Flexible ureteroscopy for stone management and other upper urinary tract diseases.
- Endoscopic, laparoscopic, robotic, and minimally invasive surgical procedures.
- Training tools for surgical education and simulation.
- Integration into surgical devices and systems for enhanced operational safety.

ADVANTAGES

- Real-time force feedback to prevent ureteral injury during surgery.
- Simple, mechanical design for easy use and reliability.
- Applicable to a variety of catheters, needles, and sheaths, enhancing its versatility in surgical procedures.
- Reduces the need for postoperative ureteral stents, decreasing patient discomfort and procedure costs.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20220126066	04/28/2022	2021-717

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OTHER INFORMATION

KEYWORDS

medical device, surgical assistance, medical instrumentation

CATEGORIZED AS

- **Medical**
  - Devices
  - Disease: Kidneys and Genito-Urinary System
- **Sensors & Instrumentation**
  - Medical
  - Position sensors

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