

Evaluation of Single-Port Robotic Initial Treatment of Hernias (ESPRITH)

A Feasibility and Outcomes Study of Groin and Ventral Hernia Repair

1. General objective

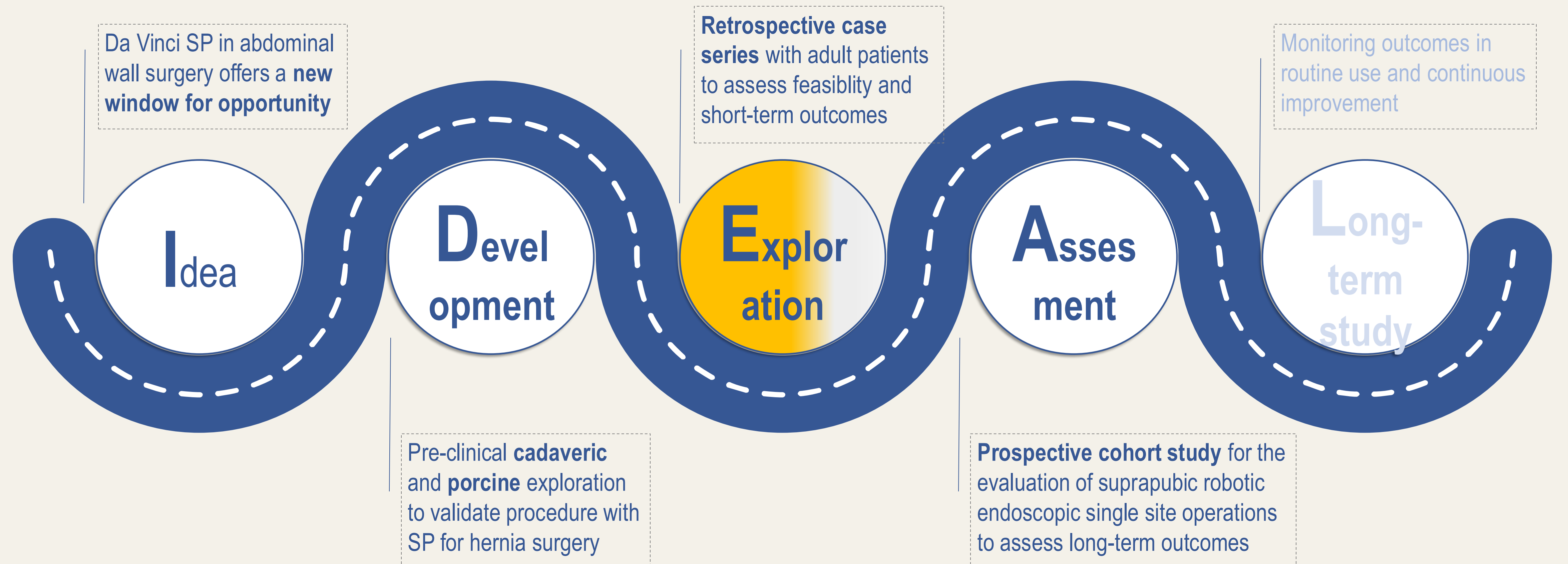


The aim to contribute to the general objective of exploring the use of the Da Vinci Single-Port (SP) robotic system for abdominal wall surgery. This study evaluates initial experiences and short-term outcomes of SP robot-assisted groin hernia (GH) and ventral hernia (VH) repairs through a suprapubic single port extraperitoneal approach (SP 2 eTEP).

2. Our exciting journey



In 2018, Intuitive Surgical introduced the **Da Vinci Single-Port robot**, which got CE-marked for general surgery in January 2024, and aims for minimal invasive general surgery



Exploration

3. Methodology (ongoing)

Our methodology aims at a sample size of 20 consecutive adult patients in a period of 6 months, undergoing SP robot-assisted GH or VH repair at a single center. A retrospective analysis of prospectively maintained data was conducted. Primary endpoint was operative time; secondary endpoints included hospital stay and complications within 30 days.

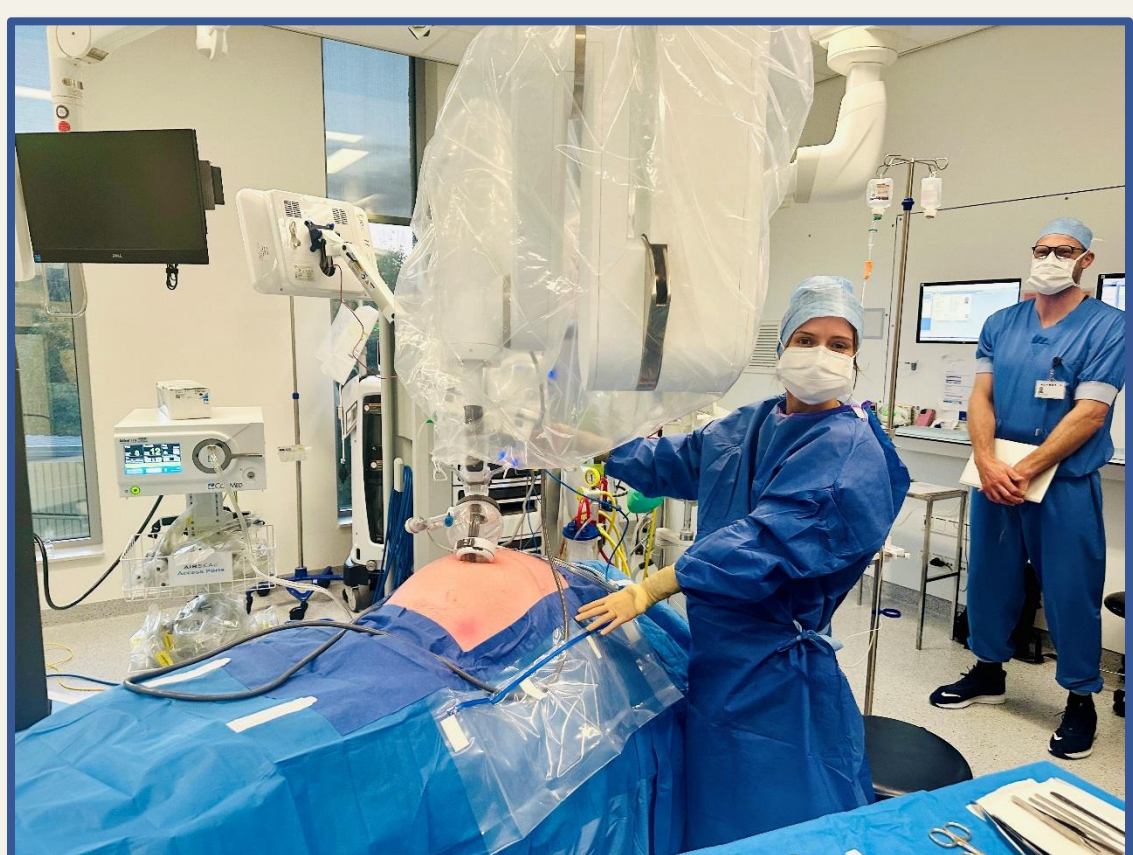
Groin Hernia (GH)

All GH repairs involved an umbilical hernia (UH) used for port access.

1. Umbilical incision 2,7cm



2. Docking SP robot



3. GH repair (TAPP/TEP)



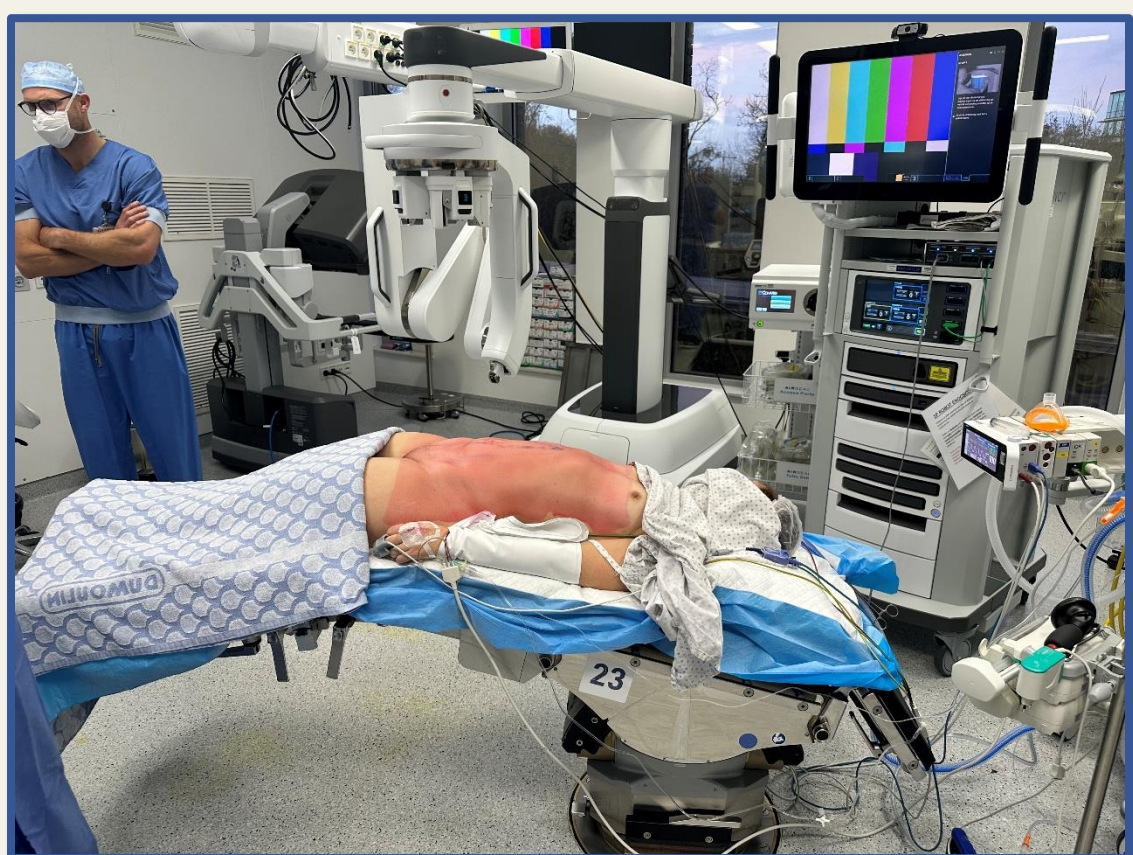
Ventral Hernia (VH)

VH repairs with diastasis were performed via a suprapubic extended totally extraperitoneal approach (SP 2 eTEP).

1. Suprapubic incision 2,7cm



2. Docking SP robot



3. VH repair (eTEP)



Exploration

4. Results



- N= 10 procedures
 - 4 GH with UH repair
 - 6 VH with diastasis repairs
- Median age: 62 years
- 60% male, 40% women
- Median BMI: 25.65 kg/m²
- 40% comorbidities.

Per- and post-operative parameters	Value
Median Operative Time (minutes) – GH	84
Median Operative Time (minutes) - VH	148
Intraoperative Complications	None
Conversion	None
Additional Ports Used	None
Median Hospital Stay (hours)	22
Same-Day Discharge (%)	60%
Postoperative Complications (Seroma)	1 seroma (GH)

Examples of postsurgical scars with minimal invasive SP approach:

Groin Hernia (GH)



Ventral Hernia (VH)



Annabelle De Troyer

Tel: +32 499 20 66 22

Email: Annabelle.detroyer@gmail.com

Address: ZAS Antwerp Belgium



Filip Muysoms

Tel: +32 0477 32 57 10

Email: filip.muysoms@gmail.com

Address: AZ Maria Middelaes Gent