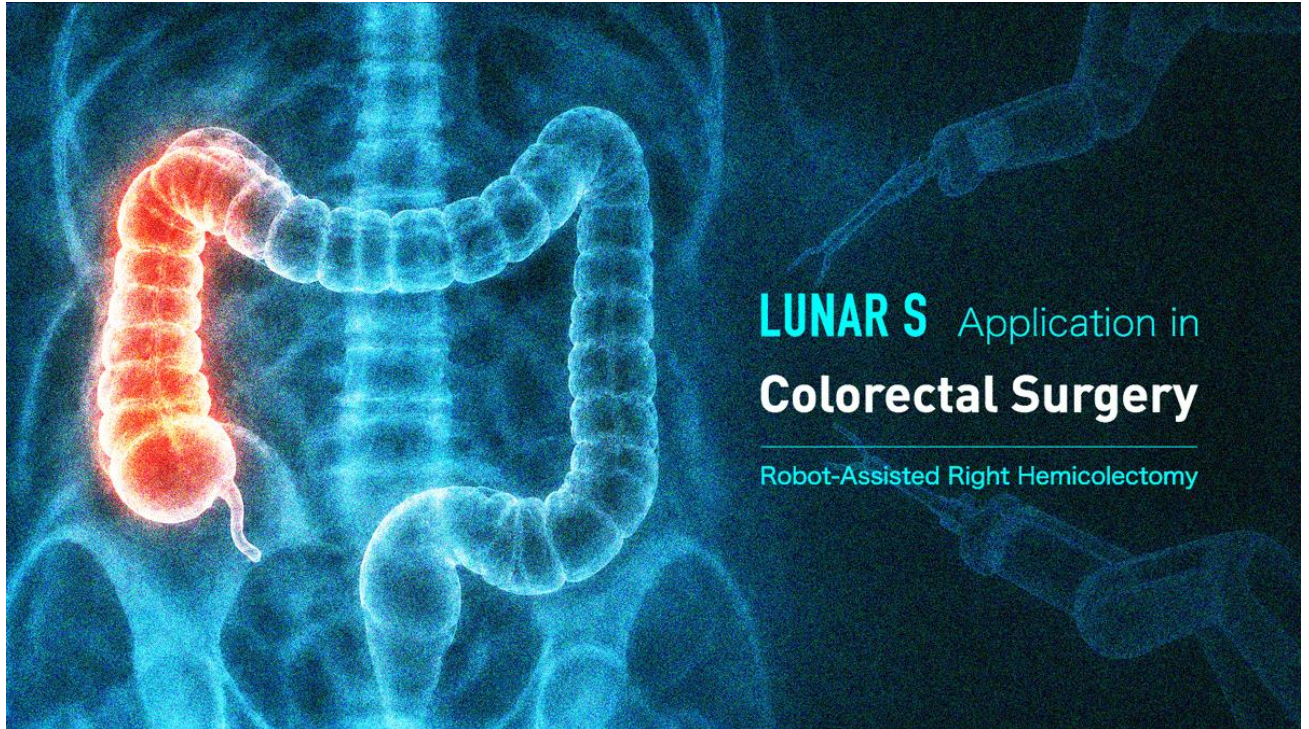




LUNAR S Application in **Colorectal Surgery**

Robot-Assisted Right Hemicolectomy

Robot-Assisted Right Hemicolectomy with LUNAR S

September 21, 2026



[Hospital General Universitario de Elche, Spain](#)

Surgical Team:



Prof. Antonio Arroyo

Current President of National Coloproctologist Society
Head of service of Elche Hospital
Full Professor, Miguel Hernández University of Elche



Prof. Luis Sánchez-Guillén

Head of the Colorectal Surgery Unit
Professor, Miguel Hernández University of Elche

Dra. Sara Chilart , Surgical Resident

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Those staples which, during the firing process, do not find any tissue to attach to remain in the machine rather than on the patient; this is a very interesting improvement...

Comment from the surgeons observing the procedure

Case Background

A robot-assisted right hemicolectomy was performed at Hospital General Universitario de Elche by a colorectal surgical team led by Prof. Antonio Arroyo and Prof. Sanchez-Guillen, with the participation of Dra. Sara Chilart.

LUNAR S was used across different stages of the procedure. Three operative sequences documented vascular firing, thick tissue transection, and a very comprehensive revision of stapleline.

Highlights

- Robot-assisted right hemicolectomy
 - Vascular and thick tissue transection
 - Stapling across different tissue conditions
 - Comprehensive stapleline assessment
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Surgical Approach and Key Techniques

Three operative sequences illustrate the use of LUNAR S at key stages of the procedure, from vascular and thick-tissue transection to comprehensive revision of the resulting stapleline.



Vascular Transection

Vascular division requires precise access, secure positioning, and controlled compression around delicate vascular structures.



Vascular transection with white reload

CLICK  to watch the full procedure video

✓ With 60° powered jaw articulation, LUNAR S supported accurate alignment around the vascular pedicle, facilitating precise instrument positioning and controlled transection within a confined operative space.



Thick Tissue Transection

Thicker tissue presents different compression and staple-formation requirements. Secure tissue capture and sustained compression are important before and during firing.



Thick tissue transection with green reload

CLICK



to watch the full procedure video

✓ In this sequence, LUNAR S supported controlled compression and powered transection across thicker tissue. Its smart stapling system detects tissue thickness, displays three levels on the OLED screen, and dynamically adjusts firing speed during transection to support consistent staple formation.



Comprehensive Revision of Stapleline

Following transection, the surgical team conducted a comprehensive visual inspection of the staple line, assessing staple formation, continuity, tissue approximation, and hemostasis.



CLICK  to watch the full procedure video

The stapleline assessment also highlighted a feature noted by the observing surgeons:

✅ Those staples which, during the firing process, do not find any tissue to attach to remain in the machine rather than on the patient; this is a very interesting improvement.



Clinical Outcome

The patient recovered well after surgery and was discharged home on postoperative day 2.

Clinical Significance

A key observation from the surgeons was that staples not engaging tissue during firing remained within the reload rather than being released into the operative field. This design may help reduce the presence of loose, undeployed staples around the transection site, while supporting a cleaner operative field and more straightforward stapleline inspection.

Beyond staple formation within the tissue, the observation highlights the value of managing staples outside the tissue boundary, an often-overlooked aspect of the firing process.

For the surgical team, this represented a practical and clinically relevant improvement in controlled stapling.



Smarter Stapling

Minimally invasive procedures should be performed only by persons having adequate training and familiarity with minimally invasive techniques. Consult medical literature relative to...

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