We are glad to announce the first publication in *Endoscopy* (Impact Factor 5.6) based on the use of our Cyber TM and Opera in endoscopic surgery (gastroenterology).

The “Thulium laser in interventional endoscopy: animal and human studies” showed the precise ablation action of Thulium laser with a very limited and confined tissue injury. The histology on the animal model reported the absence of deep submucosal injuries using Thulium laser ablation; this effect is very important on the surgical treatment of thin and delicate tissue’s areas (e.g. application in gastroenterology, neurology etc.). The great results on human’s application confirmed that Cyber TM and Opera are promising Thulium Laser devices for advanced interventional endoscopy.

The study was realized with the collaboration of:

**IRCCS Policlinico San Donato (Milano)**


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Thulium laser in interventional endoscopy: animal and human studies.
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Abstract
Background and study aims
The thulium laser system (TLS) is an emerging surgical tool. The 2-μm wavelength provides a confined coagulation depth (0.2 - 0.4 mm) to reduce the potential for inadvertent injuries. For the first time ever, we assessed TLS feasibility for endoscopic hemostasis ex vivo in pigs. In addition, we performed the first in vivo hemostatic treatments in humans.

Patients and methods
Tissue damage induced by TLS using different settings and optical fibers was compared to that from argon plasma coagulation (APC) in established ex vivo animal models. Three consecutive patients with complex nonvariceal upper gastrointestinal bleedings were treated and followed up.

Results
No deep submucosal injury was observed in animal models. The TLS showed a progressive penetration depth with increased power outputs and tissue exposures but very limited vertical tissue injury (0.1 - 2.0 mm) and lateral spreading damage (0.2 - 0.7 mm using the 365-μm and 550-μm fibers, respectively). In vivo, endoscopic hemostasis with TLS was always successful without complications.

Conclusions
The TLS has proven to be very precise and easy to use. This novel technique appears to be a promising tool for advanced interventional endoscopy.

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