

## The author replies

Most of the concepts cited in Dr. Sanpietro's letter [2] are correct and well known, and we acknowledge his wide clinical experience in the field of gasless laparoscopy. What we intended to focus on in our article [1] was not the limits of gasless laparoscopy but the further potential benefits of the subcutaneous abdominal wall lifter (Laparotenser; L & T Lucini, Milan, Italy) developed by Flavio Lucini between 1994 and 1995, which is probably the most versatile system for abdominal wall suspension now available off the shelf.

LaparoTenser is a subcutaneous lifter that allows the surgeon to use conventional cannulas, does not require an open laparoscopic approach, and can to be combined with low-pressure CO<sub>2</sub> insufflation. These factors make this system extremely helpful in laparoscopic procedures performed on patients with impairment of either the pulmonary or cardiac function. The system ensures optimal exposure, thanks to the combination of the benefits of very low gas pressure and wall suspension. Even though systems for gasless laparoscopy are becoming more and more effective (far more so than the primitive one described in the abstract submitted to the Second EAES Congress by Dr. Sanpietro in 1994), CO<sub>2</sub> pneumoperitoneum is still the most effective method to achieve adequate exposure, especially during advanced procedures. To our mind, abdominal wall lifting should not be considered a competitor of CO<sub>2</sub> insufflation but a technology to be combined with pneumoperitoneum.

It is still an open question what role gasless laparoscopy should play in trauma surgery and cancer procedures. There are preliminary data that seem to contraindicate CO<sub>2</sub> pneumoperitoneum in cancer patients, due to the decreased in-

flammatory and immune response after procedures performed with gas insufflation. On the other hand, CO<sub>2</sub> seems to inhibit the in vitro growth of liver and colon cancer cells. We believe that gasless laparoscopy deserves an open debate, and we are sure that Dr. Sanpietro's experience in this field will be extremely important. The original part of the scientific program of the Sixth World Congress of Endoscopic Surgery has not yet been completed, and any contribution in this area, submitted as an abstract, will be welcome, after completion of the peer review process.

### References

1. Angelini L, Lirici MM, Papaspyropoulos V, Sossi FL (1997) Combination of subcutaneous abdominal wall retraction and optical trocar to minimize pneumoperitoneum related effects and needle and trocar injuries in laparoscopic surgery. *Surg Endosc* 11: 1006–1009
2. Sanpietro R, d'Urbano C, Fuertes Guiró F (1994) Laparoscopic gasless cholecystectomy: preliminary results. *Surg Endosc* 8: 976

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