

## *PRESS RELEASE*

### **UEGW: Will keyhole surgery soon be redundant?**

#### **Rapid developments in surgical techniques – NOTES makes abdominal incisions unnecessary by using natural orifices**

(Barcelona, 25 October 2010) Removing the gall bladder without a visible operation scar? This is now possible in a number of clinics in Europe. NOTES is the name of this revolutionary surgical technique in which the operating instruments are introduced into the interior of the body through natural orifices, dispensing with the need for an abdominal incision. “The new method of treatment, which leaves no scars, is very attractive for patients. However, we advise caution at this stage because the effectiveness and safety of the procedure have not been adequately scientifically proven, long-term results are not yet available,” explained Prof. Eduardo Targarona, Director of the Unit of Gastrointestinal and Hematological Surgery, University of Barcelona, at the 18<sup>th</sup> United European Gastroenterology Week (UEGW) in Barcelona. The UEGW is the largest European conference of its type in Europe.

“Minimally invasive abdominal operations – also known as laparoscopies – have largely superseded the large abdominal incision,” explained Prof. Targarona. The smaller accesses to the operating site generally mean less pain and a shorter stay in hospital for the patient, while surgeons assure a reduced wound infection rate and fewer visible scars because there is less external trauma. Further advances in minimally invasive surgery in recent years have led to the introduction of the so-called single port laparoscopy, a procedure in which only one skin incision, just 1.5 to 2cm long, is made at the navel and used to attach a special ring, on which there are three 5 to 12mm fine ports, to the abdominal wall. An endoscope (camera and light source) and the operating instruments are introduced into the inside of the body through these ports. The operation itself can be followed on a monitor in the same way as with all minimally invasive operations.

#### **Transvaginal removal of the gall bladder**

NOTES represents the next stage of development. This is a surgical technique in which access to abdominal organs is achieved via natural orifices i.e., transgastrically, transvaginally and transrectally. The development of NOTES has advanced at a rapid pace particularly in India and South America, but also in Europe where several hundred operations have already been recorded in Germany and France so far. “The procedure most frequently carried out is the transvaginal removal

of the gall bladder,” said Prof. Targarona, “however, colon surgery and appendectomies or gastric resections in bariatric surgery can also be carried out through natural orifices.” Yet, the most commonly used surgical technique is still the so-called hybrid procedure in which two procedures are merged into one: the operating instruments are introduced through the natural orifice, with the endoscope introduced through a tiny incision in the abdominal wall to improve visibility and ease of operation.

### **Rapid developments but problems still remain**

Whilst progress is rapid, not all problems have been solved by any means: for example, there is a danger that the operating instruments might cause internal haemorrhaging. Experts also fear a significantly increased risk of infection if the gastric wall has to be pierced in the case of access through the mouth or if the intestinal wall has to be perforated in a rectal procedure. In such cases, it is hardly possible to work under sterile conditions in the operating field because bacteria can get into the abdomen and cause a dangerous peritonitis. In addition, technically more sophisticated instruments are required for resealing the rear vaginal wall, the gastric wall or the intestinal wall after the operation.

### **UEGF has already initiated the 2007 NOTES research programme**

Various research programmes have been carried out which have subjected the new surgical technique to close scrutiny. The European Association for Endoscopic Surgery (EAES) and the European Society of Gastrointestinal Endoscopy (ESGE), two bodies which collaborate in the UEGF (United European Gastroenterology Federation), set up the EURO-NOTES Foundation in 2007, whose members meet regularly to exchange experiences. The European experts are calling for intensive training of surgeons, the setting up of national or international registers of all NOTES procedures and for comparative studies between laparoscopic procedures and NOTES to be carried out. UEGF expert Prof. Targarona, “The aim of these measures is to guard against an overhasty introduction of this surgical procedure which, while it is doubtless promising, is still at the research stage. For the time being, such highly specialised procedures should, wherever possible, be carried out only at large operating centres.”

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