

## Topic: ABDOMINAL WALL HERNIA - Spigelian hernia, anatomy, incidence, repair

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### PO:38

#### SPIGELIAN HERNIA (SH) TREATMENT WITH PROLENE HERNIA SYSTEM (PHS)<sup>®</sup> OR ULTRAPRO HERNIA SYSTEM (UHS)<sup>®</sup>

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**Purpose:** Spigelian Hernia (SH) is a relatively rare entity, representing only 0.4 to 1.3% of all abdominal wall hernias. However, it presents much more frequently than might be suggested by the 876 cases reported in the literature by Spangen in 1989, at present the total number of reported cases is over a thousand. To date various repair techniques have been proposed including primary muscle approximation and fascial closure and prosthetic repair by open or laparoscopic surgery. The aim of this report is to describe personal experience of combined preperitoneal/onlay repair of the SH with three dimensional device, as PHS<sup>®</sup> or UHS<sup>®</sup>, and to assess the effectiveness of our choice.

**Methods:** From January 2002 to October 2014, 34 consecutive patients, 11 male and 23 females aged between 26 and 92 years (mean 63 years) have been treated for SH using PHS<sup>®</sup> or UHS<sup>®</sup>. In 74% of the cases hernia was localized on the left and in 26% on the right side, in the typical location along the Spigelian line just below the semicircular line of Douglas. In 33 cases the hernia swelling did not penetrate beyond the aponeurotic fibers of the great oblique muscle, whereas only one case the swelling presented subcutaneously. A correct preoperative diagnosis was made by physical examination and/or ultrasound in 32 cases out of 34, 32 patients were treated electively while 2 patients required emergent operations for incarceration. Local anesthesia was adopted 76 % of the cases, spinal anesthesia 15 % and general anesthesia 9%. The diameter of the parietal defect ranged from 1.5 to 4 centimeters. The PHS<sup>®</sup> device was adopted in 25 cases, while the UHS<sup>®</sup>, a new lightweight

version of the device, was utilized in the last 9 patients. The following steps refer the surgical technique: skin incision over the hernia along the Langer lines, opening the external oblique aponeurosis, dissection and complete reduction of the hernia sac without opening or resection, widening of the preperitoneal space through a gauze swab, placement and unfolding of the underlay patch in the preperitoneal space, fixing the connector to the internal oblique muscle with two absorbable stitches and the onlay patch by fibrin glue, closure of external oblique aponeurosis over the onlay patch with absorbable suture.

**Results:** The mean operative time was 45 minutes (range 30-90). Hospital stay was between four and six hours for patient treated under local anesthesia, one day after spinal anesthesia and three days after emergency treatment. All patients declared satisfaction for treatment. Three early postoperative seromas were detected and treated by needle aspiration. No recurrences, chronic pain, numbness or discomfort were detected during a mean follow-up of 7 years (range 6 months-12 years).

**Conclusions:** Spigelian hernia are uncommon type of ventral hernia that shows an increasing reported frequency may be due to overcome of the diagnostic difficulties thanks to development of imaging techniques (sonography and CT scan), and to the increasing interest about abdominal wall pathology. This hernia should be repaired at time of diagnosis because of the risk of incarceration and strangulation as high as 24%. Various techniques have been performed: at the present primary tissue repair is indicated just for small parietal defect size (less than 1 centimeter), nevertheless open hernioplasty with patch, plug or both combined or laparoscopic by total extraperitoneal or intraperitoneal approach are the treatment of choice. We believe that PHS<sup>®</sup>-UHS<sup>®</sup> repair should represent an alternative therapeutic option to open techniques and could be recommended because it is a very effective tension free technique; safe, easy and fast to perform. In elective patients is often feasible under local anesthesia as day case procedure such a true minimally invasive surgery.