# Spigelian Hernia : Fascia Lata Repair Is an Alternative Option in Absence of Prolene Mesh

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Spigelian hernia is rare. Seven cases of Spigelian hernia are presented. These include two recurrent Spigelian hernias. Incisional hernias through Spigelian aponeurosis after Pfannensteil incision are not included. Clinical examination is the mainstay of diagnosis. The true incidence is possibly higher, as a low Spigelian hernia is not recognised and often diagnosed as a direct inguinal hernia. Ultrasound scanning is recommended, as it is non-invasive and easily available and can detect the hernial orifice in the Spigelian fascia at an early stage. Recurrence of Spigelian hernia took place in two cases through the site of prolene stitch of a previous repair. Hernioplasty with tension free fascia lata graft / prolene mesh was carried out in all cases. The cost of fascia lata graft is only a scar in the thigh. In a mean follow-up of 3.1-year no patient has reported back with recurrence This is the ideal substitute for the patients in developing countries where synthetic meshes are still not freely available.

*Key words* : **Spigelian hernia, fascia lata graft, prolene mesh.**

Adriaan van den Spigel (1578-1625) was first to describe the semilunar line. Henry-Francois Le Dran described spontaneous rupture along the semilunar line in1742, but Josef T Klinkosch was first to refer this condition as a hernia in 1764 [1].

The Spigelian line marks the transition from muscle to aponeurosis in the transversus abdominis muscle of the abdomen. It is a lateral convex line between the costal arch and the pubic tubercle. The part of the aponeurosis that lies between the semilunar line and lateral border of the rectus muscle is called the Spigelian fascia or zone.

Spigelian hernia is defined as a protrusion of preperitoneal fat, a sac of peritoneum, an organ, through a congenital defect or weakness in the Spigelian fascia[2,3] .It is usually located between the different muscle layers of the abdominal wall, therefore it is also called as interparietal, interstitial, intermuscular, intramuscular, or intramural hernia. In this location, a small hernia gives rise to vague discomfort and non-specific symptoms and is also difficult to palpate.

A Spigelian hernia is usually located above the inferior epigastric vessels. Hernias that penetrate the Spigelian fascia within Hesselbach's triangle, caudal and medial to the inferior epigastric vessels, are called low Spigelian hernias. Spigelian hernia belt[1] is a transverse belt lying 0 to 6 cm cranial to the interspinal plane where the Spigelian fascia is the widest. Incisional hernias through the Spigelian line / fascia conventionally are not considered as Spigelian hernia[1], though some authors have described them as Spigelian hernia[4].

## Material and Method

Over a period of 4years and 6 months, 7 cases of Spigelian hernia were presented. Ultrasonography was carried out in all cases. Straight x-ray of abdomen was done to rule out intestinal obstruction in 3 patients who presented with acute abdominal pain. Computed tomography (CT) scan was done in 2 cases as the diagnosis was elusive by ultrasound study.

The first and third cases were recurrent Spigelian hernias. Herniorrhaphy with prolene suture was done earlier at another centre in these cases but recurrence occurred at the

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site of suture repair. Old prolene suture was present by the side of the neck of the sac. Hernioplasty with fascia lata graft was done in both the cases, as prolene mesh was not available. Next patient havng fascia lata graft had a wide defect in the spigelian fascia requiring hernioplasty. In the rest 4 cases, hernioplasty was routinely performed with prolene mesh.

Table I — *Clinical Profile of Patients*

| Observation | No (%) (n=7) |
|---|---|
| Lump in the abdomen | 7 (100) |
| Pain abdomen | 5 (70) |
| Local tenderness | 5 (70) |
| Irreducibility | 2 (28) |
| Vomiting | 2 (28) |

## Observations

Duration of the study was 4 years and 6 months. There were 7 cases of Spigelian hernia of which recurrent Spigelian hernia was observed in 2 females who underwent herniorrhaphy with prolene suture earlier. The male to female ratio was 2:5. The age group of the patients was 18-69 years with a mean age of 52 years. The clinical profile of the patients is depicted in Table 1.

## Discussion

Spigelian hernia is a rare ventral hernia[2,5,6]. Clinical examination is the mainstay of diagnosis[7].Ultrasonic scanning for detection of Spigelian hernia at the early stage has been found to be extremely useful[2,3,5,6]. In the present study too, ultrasonic scanning was the preferred investigative modality to confirm the clinical suspicion. A CT scan is only required if there is a doubt in making the diagnosis[5-7]. The diagnosis is based on demonstration of defect in the Spigelian aponeurosis[1].

A Spigelian hernia may be confused with a lipoma or a parietal abscess[8]. Intestinal obstruction with or without strangulation is not a rare presentation[8-10]. On the right side it can mimic acute appendicitis[11]. Spigelian hernias are rarely known to contain an acutely inflammed appendix, Crohn's appendicitis, even an incarcerated Meckel's diverticulum[11-13]. Bilateral Spigelian hernias are rare[14]. Spigelian hernia with homolateral direct inguinal hernia, double hernial pathology, have also been reported[15].

The true incidence is possibly higher as a low Spigelian hernia is not recognised and often diagnosed as a direct inguinal hernia[16]. Spigelian hernia is commonly located in the Spigelian hernia belt. High location is rare as the Spigelian line is overlapped by the rectus abdominis muscle[1,4,17]. Spigelian hernia is rare in the paediatric age group. Ipsilateral undescended testicle,a cause or coincidence,should be looked for[18,19].

Laparoscopy is the new diagnostic and therapeutic tool. Hernial orifice can be visualised from inside and also can be repaired with placement of mesh. At the same time, other pathologies, like cholelithiasis, can be dealt with[12,20].

Spangen[1] recommended simple closure of the defect in the form of herniorrhaphy. Nozoe *et al*[10] performed a simple hernioplasty by suturing the internal oblique and transverse muscles to the rectus sheath. Development of mesh and concept of its tension free application to other hernias, by Lichtenstein, led to its use by many for Spigelian hernias[14,15,21-23]. In the present series tension free fascia lata graft/ mesh repair was performed. Facia lata graft is readily available and a good alternative to synthetic mesh. Scar in the thigh is the only disadvantage of fascia lata graft. This is the ideal substitute for the patients in developing countries where synthetic meshes are still not freely available. In a mean follow-up of 3.1 year, in the present study, no patient has reported back with recurrence.

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