

Salpingitis Isthmica Nodosa or Endometriosis? Importance of Basics: A Case Report

Ashish Ranjan Singh¹, Umesh Kumar², Anila Sinha³, Tulika Singh⁴, Sunita Kumari⁵

¹Senior resident, IGIMS, Patna, India

^{2,3,4,5}Junior Resident, IGIMS, Patna, India

Abstract: *Salpingitis isthmica nodosa is a condition of the fallopian tube characterized by nodular thickening of the tunica muscularis of the isthmic portion of the tube enclosing cystically dilated glands leading to complete obliteration of tubal lumen [1]. Salpingitis isthmica nodosa can lead to patient on risk, for recurrent ectopic pregnancy or infertility. And in histopathology it is important to distinguish from endometriosis. This condition can be diagnosed by Hysterosalpingography also. Hence, we report a case of salpingitis isthmica nodosa which was an incidental finding in a case of 45 year old woman who presented with pain abdomen.*

Keywords: Salpingitis isthmica nodosa, endometriosis, Hydrosalpinx, Fallopian tube

1. Case Report

A 45 year female presented with complain of abdominal pain and menorrhagia in gynaecology department. On abdominal examination, she had right iliac fossa tenderness and abdominal ultrasonography showed submucosal fibroid with right hydrosalpinx. The patient underwent total abdominal hysterectomy with bilateral salpingectomy. There is no history of any previous surgery or tubectomy.

On gross, intramural fibroid measures 7x5x4 cm. Right fallopian tube 5 cms in length and dilated (distal) end measuring 2cm in maximum dimension; cut surface is filled

with serous fluid Left fallopian tube measures 5 cms in length and grossly unremarkable. Transverse sections from proximal and distal part of the right fallopian tube were taken. Microscopically, section from right fallopian tube shows dilated glands lined by ciliated columnar epithelium within hypertrophied smooth muscle (fig 1, 2&3). Myometrium shows features of leiomyoma. Endometrium shows endometrial hyperplasia without atypia. Left fallopian tube appears histologically within normal limits. So, the final diagnosis of salpingitis isthmica nodosa (right fallopian tube) with hydrosalpinx was made.

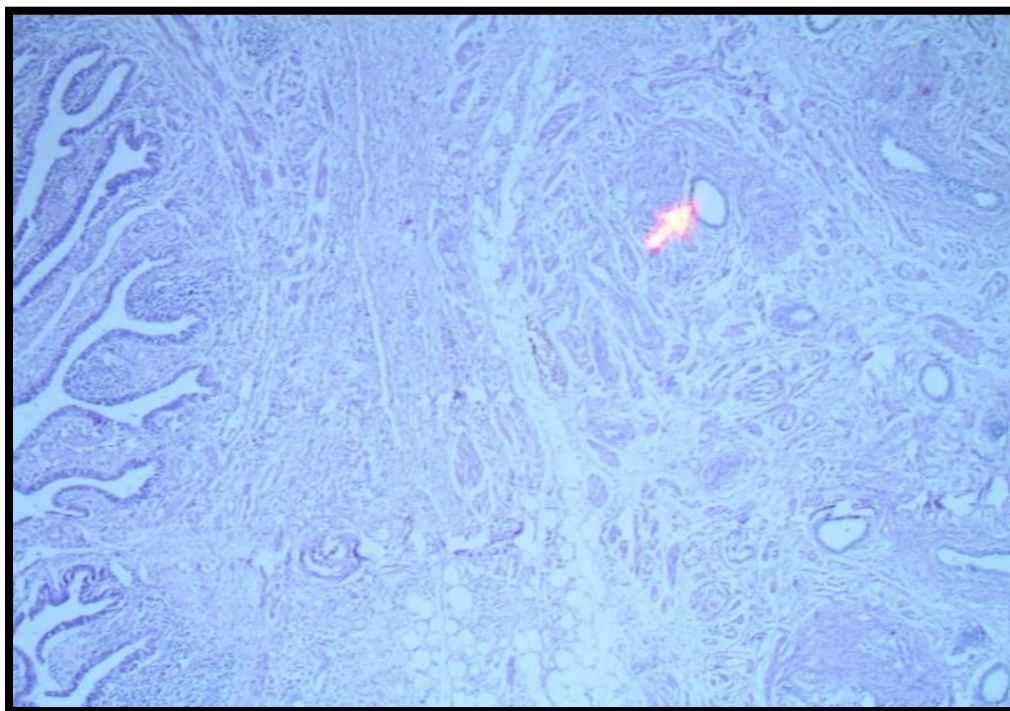


Figure 1: Photomicrograph shows tubal epithelium (left side) and dispersed glands with hypertrophied smooth muscle (red arrow on right side) H and E, 10x)

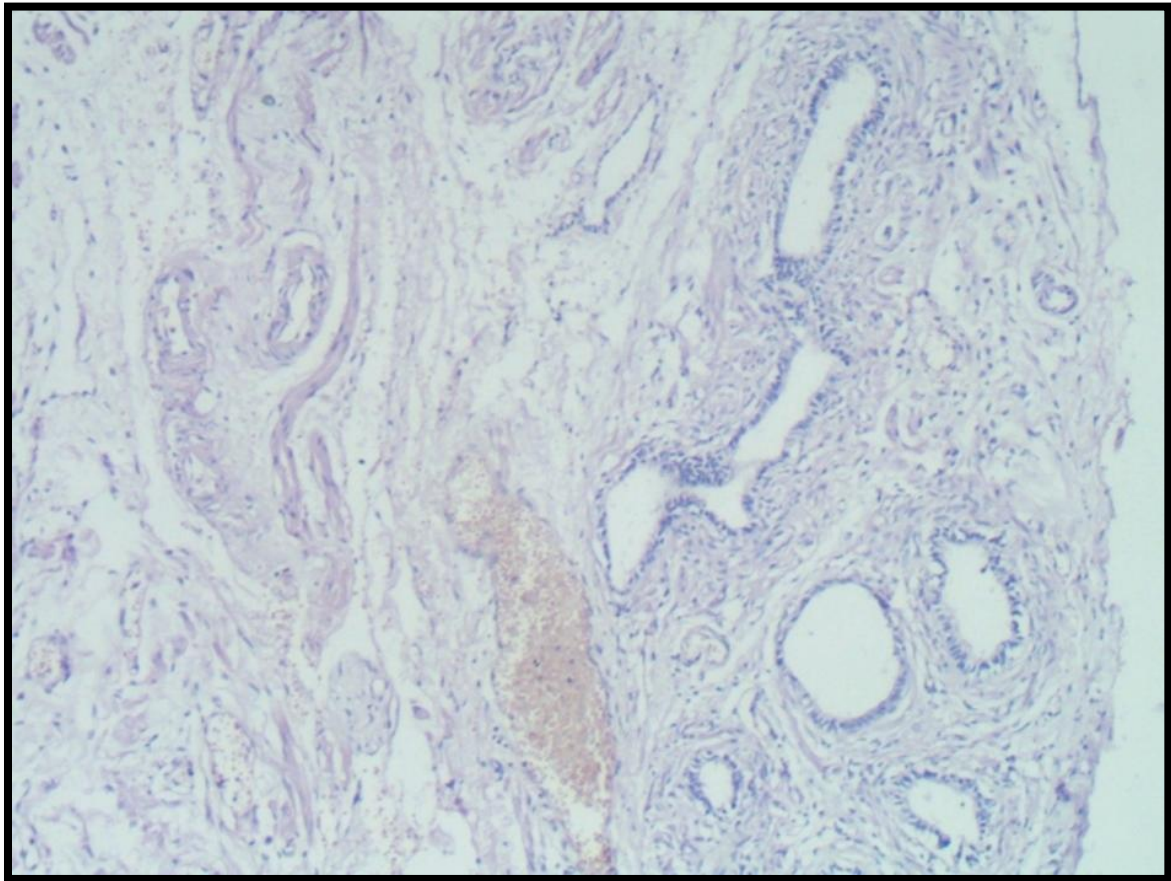


Figure 2: Photomicrograph showing tubal glands at the periphery of the Section. (H & E, 40x)

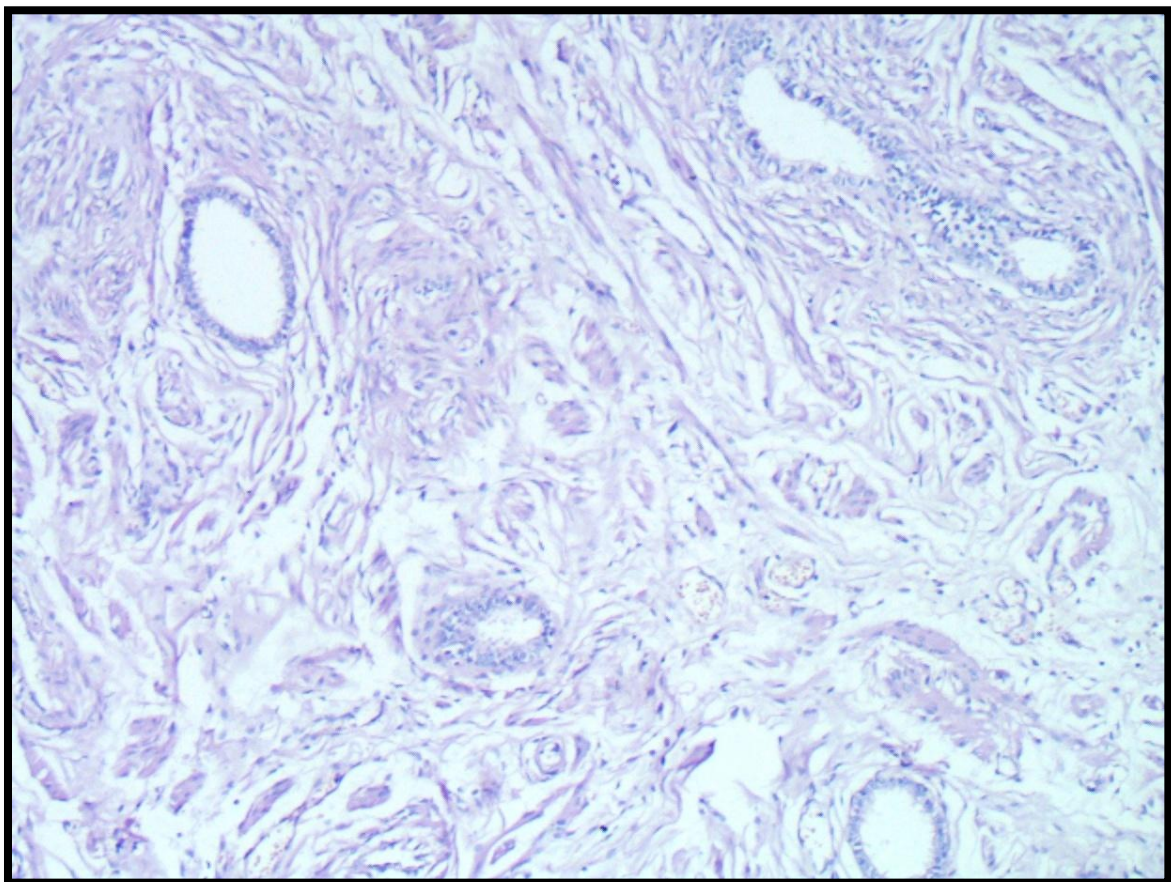


Figure 3: Photomicrograph showing dispersed glands of tubal epithelium surrounded by broad band of muscle fibres (H and E, 40X)

2. Discussion

Salpingitis isthmica nodosa (SIN) is a condition in which there are regularly spaced glands lined by normal appearing tubal epithelium within hypertrophied smooth muscle [1, 2]. It involves females of age group of 25-60 years. The mean age of diagnosis being 30 years [3]. It is generally bilateral in presentation and leads to infertility and recurrent ectopic pregnancies [3].

Incidence of SIN ranges from 0.6% to 11% in healthy and fertile women [4, 5]. Etiology of this condition is unknown. However, post-inflammatory distortion and adenomyosis like process are likely possible causes [6].

Microscopic examination of fallopian tube shows regularly spaced glands within hypertrophied smooth muscle [7]. Hysterosalpingography is diagnostic for this condition but may be confused with tubal endometriosis. So, good knowledge of normal histology of endometrial stroma and glands are important to differentiate it from tubal epithelium lining. Endometrial glands are elongated with narrow lumens and their epithelial cells contain glycogen. Stromal cells have plump, spindle-shaped nuclei and scanty cytoplasm. Fallopian tube will have single layer of tall columnar epithelial cells. The columnar cells of the epithelium are of three types: ciliated, non-ciliated secretory and intercalated cells. Scattered intraepithelial lymphocytes are also present. Recurrent ectopic pregnancies and infertility are common complications of salpingitis isthmica nodosa and hence, it is important to rule out such cases.

References

- [1] Jenkins CS, Williams SR, Schmidt GE. Salpingitis isthmica nodosa: A review of literature, discussion of clinical significance and consideration of patient management. *Fertil Steril* 1993;60:599-607.
- [2] Majumdar B, Henderson PH, Semple E. Salpingitis isthmica nodosa: A high risk for tubal pregnancy. *Obstet Gynecol Surv.* 1983;62:73-78.
- [3] Chawla N, Kudesia S, Azad S, Singhal M. Salpingitis isthmica nodosa. *Ind J Pathol Microbiol.* 2009; 52: 434-35.
- [4] Honore LH. Salpingitis isthmica nodosa in female infertility and ectopic tubal pregnancy. *Fertil Steril.* 1978; 29:164-68.
- [5] Persaud Y. Etiology of tubal ectopic pregnancy. *Obstet Gynecol.* 1970; 36:257-63.
- [6] Green LK, Kott ML. Histopathologic findings in ectopic tubal pregnancy. *Int J Gynecol Pathol.* 1989;8: 255-62.
- [7] Wheeler JE. Pathology of the fallopian tube. In: *Pathology of the Female Genital Tract.* Springer, Berlin Heidelberg New York. 1982 pp 403-04.