

Endometriosis following episiotomy: a case report with review of literature

N Lavanya Kumari¹, Valluvan Manimozhi^{2*}, K Hari Prasad³, P Viswanathan⁴, Rehana Tippoo⁵

{¹Professor, Department of Obstetrics and Gynaecology}, {^{2,3}PG Student, ⁴Professor and HOD, ⁵Professor, Department of Pathology}, Rajah Muthiah Medical College, Annamalai University, Chidambaram, INDIA.

Email: drvalluvan@gmail.com

Abstract

A 30 years old women presented with painful nodule in the 8'o clock position of the labia majora. There was a history of episiotomy 12 months back. The nodule was subsequently developed and there is history of cyclic pain. Treated successfully with complete excision.

Keywords: Endometriosis, Post episiotomy.

*Address for Correspondence:

Dr. Valluvan Manimozhi, PG Student, Department of Pathology}, Rajah Muthiah Medical College, Annamalai University, Chidambaram, INDIA.

Email: drvalluvan@gmail.com

Received Date: 11/11/2014 Revised Date: 16/12/2014 Accepted Date: 21/01/2015

Access this article online	
Quick Response Code:	Website: www.statperson.com
	Volume 5 Issue 1

INTRODUCTION

Scar endometriosis is one of the complication following pelvic surgeries in female of reproductive age group. The same had been documented following LSCS as well. But endometriosis following episiotomy is uncommon. Knowing the fact that episiotomy is a standard procedure in obstetric events. Here with a patient who developed scar endometriosis with a painful nodule following episiotomy is being presented.

CLINICAL HISTORY

A 30 years old woman, Para -2, live- 2 presented with a painful nodule at 8' 0 clock position of the labia majora. The nodule developed few months later following the second childbirth. The reference of the case records revealed history of episiotomy. The nodule was particularly tender during her menstrual cycles. The diagnosis of scar endometriosis was made. Initially she was treated conservatively for few months; since there was not much improvement clinically, the mass was excised and sent for HPE. The specimen revealed a skin covered soft tissue mass measuring 3x2x2 cms; on cut section black colored areas were present.

MICROSCOPY

The skin of the perineum containing endometrial glands in the sub epidermal zone and the glands are seen distributed up to the deep dermal level. The endometrial glands are of varying size and shape and are lined by columnar cells. The endometrial glands are surrounded by spindle shaped endometrial stromal cells Fig(1-7). Pigment laden macrophages are present. Some of the glands contain hemorrhagic secretions.

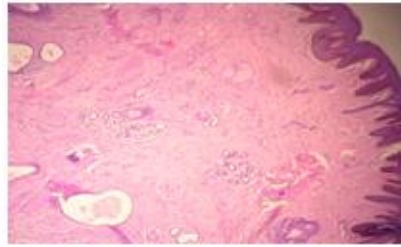


Figure 1: Skin biopsy material showing apocrine glands and endometrial glands. (x4)

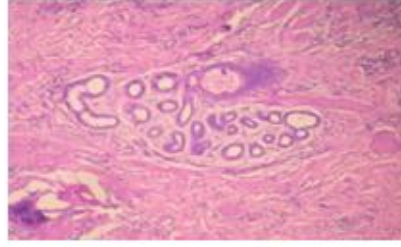


Figure 2: Apocrine glands with eosinophilic secretions (x10)

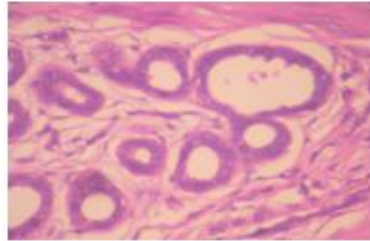


Figure 3: Apocrine glands(x40)

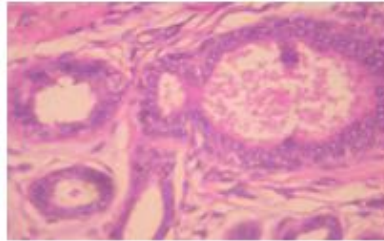


Figure 4: Apocrine glands(x40)

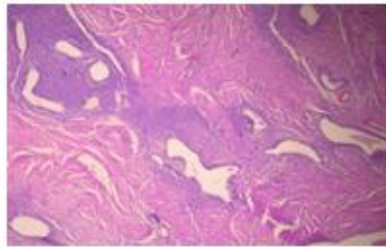


Figure 5: Endometrial glands with stroma (x4)

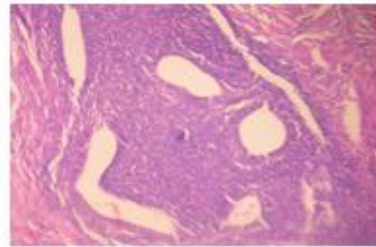


Figure 6: Endometrial glands with stroma (x10)

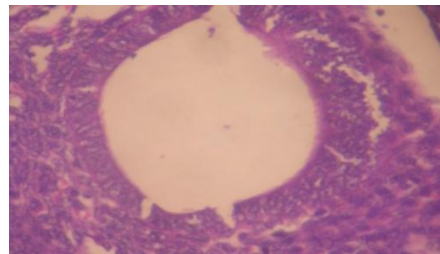


Figure 7: Endometrial gland with stroma (x40)

DISCUSSION

Endometriosis affects women during their reproductive years. Von Rokitansky first mentioned it in 1860, but Sampson introduced the first detailed description in 1921¹. Endometriosis is defined as the presence of ectopic tissue, which possesses the histologic structure, and function of the uterine mucosa. The etiology of endometriosis is unknown, but several theories have been suggested²⁻⁷:

1. Transplantation theories, suggesting that viable endometrial cells are transported to ectopic locations by:

a) Reflux through the tubes during menstruation and implantation on the

surrounding pelvic structures (Sampson's retrograde transport theory).

b) Direct wound implantation caused by gynecologic procedures at the time of vaginal delivery or during caesarean section (which can explain development of endometriosis in episiotomy or abdominal scars).

c) Vascular and lymphatic channels of the basal endometrium to distal ectopic sites such as mediastinum, nasal mucosa, limbs, kidney, etc. (Halban's theory).

2. Metaplasia theories, state that metaplasia of celomic membrane into endometrial tissue, can

occur if any given proper hormonal milieu. These theories can explain development of endometriosis in males treated by estrogens and in females with primary amenorrhea and without functioning uterine endometrium.

3. Induction theories, suggesting that chemical substances liberated from the uterine cavity are transported to ectopic locations, where they stimulate metaplasia of local cells.
4. Genetic theory, which suggests a multifactorial inheritance pattern.
5. Steroid hypothesis, according to which low concentrations of estrogen and progesterone in the peritoneal fluid (as a result of luteinized unruptured follicle) facilitate implantation of the endometrial cells in the peritoneal cavity, while High concentrations of these steroids, associated with normal ovulation, prevent the development of endometriosis.
6. Immunologic theories, which claim that implantation or rejection of the ectopic endometrial fragments may be related to the immune system. It is suggested that deficiency in cell-mediated immunity may be a characteristic feature of endometriosis.

Episiotomy scars appear to be more commonly affected if the episiotomy is associated with a vaginal delivery and subsequent uterine curettage. The exact etiology of endometriosis is unknown⁸. It may be caused by migration of endometrial tissue through the fallopian tubes into the pelvis causing pelvic endometriosis or down the vagina into an episiotomy scar, after a vaginal delivery; or it may be caused by a metaplasia of Müllerian duct remnants, which develop into endometriotic tissue secondary to cyclical ovarian stimulation. An alternative suggestion has been that endometrial tissues disseminate to ectopic sites along venous and lymphatic channels. Depressed cell mediated immunity may favour the implantation of endometrial tissue at ectopic sites, and although no tests of immune function were performed in the present patient, the development of the disease at two quite separate anatomical sites might be interpreted as supporting this thesis⁹. Prince and Abrams [1957]¹⁰ reviewed 25 cases and reported 1 case. Murray [1959]¹¹ reported 1 case. Stingl [1960]¹² reported 1 case. Trampuz [1962]¹³ reported 7 cases. Binder [1965]¹⁴ reported 1 case. Beischer [1966]¹⁵ reported 1 case. McGivney and Mazuji [1966]¹⁶ reported 1 case. Cheleden [1968]¹⁷ reported 2 cases. Ramsey [1971]¹⁸ reported 1 case. Paull and Tedeschi [1972]¹⁹ reported 15 cases. Gordon *et al.* [1976]²⁰ reported 5 cases. Hambrick *et al.* [1979]²¹ reported 4 cases. Lekin [1981]²¹ reported 1 case.

Ljubojevic *et al.* [1982]²² reported 1 case. Wittich [1982]²³ reported 1 case. I. Kanellos *et al* [2001] reported 1 case. Goran I. Barisic *et al* [2006] reported 2 cases. Meriem Laadioui *et al* [2013] reported 1 case. We are reporting a patient presented with scar endometriosis following episiotomy that presented with a pain full nodule at the episiotomy site.

CONCLUSION

Even though presentation of scar endometriosis is rarely frequent following caesarian section and other surgical procedures involving pelvic organs in females. Even though episiotomy is routine procedure in obstetric practice where episiotomy is corrected with absorbable suture material; scar endometriosis at episiotomy wound is rare. Hence the presentation to highlight the possibility of such a pathology following simple procedure.

REFERENCES

1. Sampson JA. Perforating hemorrhagic (chocolate) cysts of the ovary: their importance and especially their relation to pelvic adenomas of endometrial type. Arch Surg 1921; 3:245.
2. Ridley JH. The histogenesis of endometriosis. A review of facts and fancies. Obstet Gynecol Surv 1968; 23:1-35.
3. Dmowski WP, Steele RW, Baker GF. Deficient cellular immunity in endometriosis. IS J Obstet Gynecol 1981; 141:377- 83.
4. Dmowski WP, Radwanska E. Current concepts on pathology, histogenesis and etiology of endometriosis. Acta Obstet Gynecol Scand [Suppl] 1984; 123:29-33.
5. Simpson JL, Elias S, Malinak RL, Buttram VC Jr. Heritable aspects of endometriosis. I. Genetic studies. IS J Obstet Gynecol 1980; 137:327-31.
6. Koninckx PR, Ide P, Vandenbroucke W, Brosens IA. New aspects of the pathophysiology of endometriosis and associated infertility. J Reprod Med 1980; 24:257-60.
7. Schickele M. Quoted by Prince LN, Abrams J.
8. Sayfan J, Benosh L, Segal M, Orda R. Endometriosis in episiotomy scar with anal sphincter involvement. Report of a case. Dis. Colon Rectum 1991; 34: 713-16.
9. William h. Isbister. Endometriosis in an episiotomy scar preceding pelvic endometriosis. ANZ J. Surg. 2002; 72: 314-315.
10. Prince LN, Abrams J. Endometriosis of the perineum: review of the literature and case report. IS J Obstet Gynecol 1957; 73:890-3.
11. Murray RR. Endometriosis of an episiotomy scar. US Armed Forces Med J 1959; 10:1463-8.
12. Stingl A. An unusual case of endometriosis in a perineal scar. Klin Med (Wien) 1960; 15:325-9.
13. Trampuz V. Endometriosis of the perineum: a report of 5 new cases. IS J Obstet Gynecol 1962; 84:1522- 5.
14. Binder SS. Endometriosis of the vulva and perineum. Pacif Med Surg 1965; 73:294-6.
15. Beischer NO. Endometriosis of an episiotomy scar cured by pregnancy. Obstet Gynecol 1966; 28:15-21.

16. McGivney J, Mazuji MK. Endometriosis of episiotomy scars: case report. *Am Surg* 1966; 32:469-71.
17. Cheleden J. Endometriosis of the perineum: report of two cases. *South Med J* 1968; 61:1313-4.
18. Ramsey WH. Endometrioma involving the perianal tissues: report of a case. *Dis Colon Rectum* 1971; 14:366-7.
19. Paull T, Tedeschi LG. Perineal endometriosis at the site of episiotomy scars. *Obstet Gynecol* 1972; 40:28-34.
20. Gordon PH, Schottler JL, Balcos EG, Goldberg SM. Perianal endometrioma: report of five cases. *Dis Colon Rectum* 1976; 19:260-5.
21. Hambrick E, Abcarian H, Smith D. Perineal endometrioma in episiotomy incisions: clinical features and management. *Dis Colon Rectum* 1979; 22:550-2.
22. Lekin M. Endometriosis in an episiotomy scar. *Meal Pregl* 1981; 34:171-2.
23. Ljubojevic N, Trosic A, Varnai M. Endometriosis in an episiotomy scar. *Jugosl Ginekol Opstet* 1981; 22:129-30.
24. Wittich AC. Endometriosis in an episiotomy scar: review of the literature and report of case. *J Am Osteopath Assoc* 1982; 82:22-3.

Source of Support: None Declared
Conflict of Interest: None Declared