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Original Research Paper

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A CASE REPORT OF MEMBRANOUS DYSMENNORHEA IN A PATIENT WHO RECEIVED CONTINOUS COMBINED ESTROGEN-PROGESTERONE PILL.

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ABSTRACT **Background:** Membranous dysmenorrhea is a rare condition in which there is expulsion of endometrialcast in a piece retaining the shape of uterine cavity. Membranous dysmenorrhea as a clinical entity is rarely mentioned in medical literature and textbooks. Patients present with acute abdomen and with little clinical suspicion of this condition, the diagnosis can be missed. It is always confused with number of other conditions and leads to a long list on investigations for related diseases. **Objective:** To report a case of 35 years woman presenting with acute severe onset of pain in abdomen with bleeding per vaginum with eventual diagnosis of membranous dysmenorrhea. **Method:** Patient of known case of chocolate cyst of ovary with grade 4 endometriosis presented with acute abdomen and bleeding per vaginum. She received continuous combined estrogen-progesterone pills for 63 days with last pill taken 5 days back. On per speculum inspection fleshy mass was seen protruding from cervical os which raised strong clinical suspicion of decidual cast. **Conclusion:**Image 1: Gross photo showing decidual cast maintaining uterine shapeHigh degree of clinical suspicion and thorough clinical examination helps in diagnosing this condition and subsequent management.

KEYWORDS : Endometrial cast, decidual cast, membranous dysmenorrhea.

Introduction

Dysmenorrhea is cyclical cramping pain that occurs during menstruation. Some degree of pain accompanies almost all cycles. However, pain severe enough to disrupt daily routine activities and usually accompanied by headache, nausea, vomiting and diarrhea, is quite troublesome to patient and one of the most common causes for patient presenting to a gynecologist. Classically dysmenorrhea is divided into two types: 1) Primary dysmenorrhea- cyclical menstrual pain without any identifiable associated pathology; 2) Secondary dysmenorrhea- that associated with identifiable pathology e.g. Endometriosis, leiomyomas, PID, adenomyosis, endometrial polyps and menstrual outlet obstruction.

The Membranous Dysmenorrhea is a clinical entity rarely mentioned in the medical literature. This term was first used in the 18th century by Giovanni Morgagni Bauttista1, when he described a decidual cast as a spontaneous and painful sloughing of endometrium in an entire piece that retains the shape of the uterine cavity or in several membranous pieces.

Patient with membranous dysmenorrhea present with severe acute onset cramping pain in lower abdomen. This raises suspicion of acute emergencies with alarming significance like ruptured ectopic, torsion ovarian cyst, incomplete abortion and other non-gynecological causes like appendicitis, diverticulitis, cystitis-pyelonephritis, acute intestinal obstructions and finally a decidual cast. With little mention of this entity in medical literature and rarity of this clinical entity, diagnosis of this condition is likely to be missed.

This case report describes clinical presentation, diagnosis and management in a patient with membranous dysmenorrhea.

Case Report

A 37 years Para-0 Abortion-2 with a known case of Grade 4 endometriosis with history of laparotomy for bilateral ovarian endometriotic cyst drainage with postoperative treatment with 63 days continuous combined estrogen-progestogens pills, last tablet taken 5 days back presented to emergency room with complaints of severe pain in abdomen and bleeding pervaginumspotting since 4-6 hours. She had irregular menstrual cycles once every 3-4 months with severe dysmenorrhea. Her last menstrual period was 4 months back. On examination general condition of patient was stable with Pulse rate of 94/min and Blood Pressure of 120/80 mm Hg. On per abdomen examination uterus was 18 weeks. On per speculum examination cervical os was open and fleshy mass was seen protruding through introitus which was highly suggestive of decidual cast. Her Urine Pregnancy Test was negative.Patient spontaneously passed decidual cast tissue after which her symptoms settled. After expulsion of decidual cast on transabdominalsonography uterus was 12*10*6 cm with left ovarian simple cyst of 2.5*1.6 cm. The decidual cats was sent for histopathological examination which on gross examination showed A single grey brown rubbery tissue piece of size 16*8*3 cm with irregular grey-brown external surface with small cystic areas in between. Cut surface was spongy with hemorrhagic foci.On microscopy decidual tissue with embedded endometrial glands lined by single layer of

Image 1: Gross photo showing decidual cast maintaining uterine shape

epithelium with mucinous secretion in some was seen with stroma showing mild inflammation, areas of hemorrhages and congested blood vessel

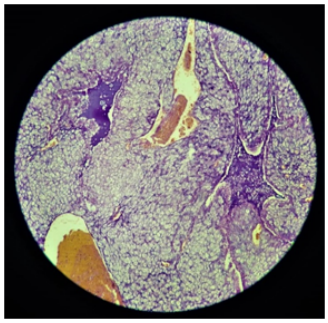

Image 2:Decidualizedstroma with blood vessels. (Low Power)

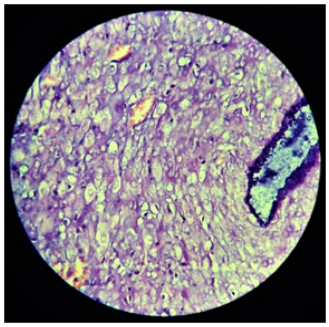

Image 3: Magnified view showing decidual cells.

DISCUSSION

Membranous dysmenorrhea is a rare clinical condition in which there is expulsion of endometrium in a piece retaining the shape of uterine cavity. It is considered as a variety of irregular shedding of endometrium. It is one of the causes of secondary dysmenorrhea. It clinically presents with severe cramping pain in abdomen in expulsion phase.

Many etiological hypotheses have been proposed for this condition. Sir Greenblattet al2 proposed that membranous dysmenorrhea represents hyperprogestational response. Mazer and Israel3 stated that the cause was an increase in the production of estrogen and progesterone with incomplete disintegration of the resultant thickened endometrium. The resultant larger and thickened endometrium causes 'hypersensitive' uterine reflex causing colicky pain. Wodon and Cordier4 believed that the syndrome was due to normal but intense development of the spiral arterioles during the second part of endometrial growth and a period of regression of the functional layer. A phase of abnormally early and intense vasodilation was thought to occur, and this was followed later by vasoconstriction of spiral arteries at their base. Dallenback-Hellweg5proposed hyperestrogenism as cause either endogenous (excess production of hypophysealgonadotrophins or hyperfunctioning corpus luteum or pregnancy either ectopic or intrauterine) or exogenous (continuous combined estrogen-progestogen oral pills or injectable progestogens). In this condition, dysmenorrhea occurs due to the failure of the tissue to undergo dissolution while the spontaneous detachment of intact cast can be explained by focal release of relaxin at the demarcation line and comparable with detachment process after delivery.

Decidual casts have a well-known association with ectopic pregnancy. Ectopic pregnancy with cast can be mistakenly diagnosed as intrauterine pregnancy on ultrasonography. The cast expulsion can be wrongfully thought as miscarriage clinically.Decidual cast is also seen in unimpregnated horn of uterus didelphis. In non-pregnant women decidual cast is reported as a side effect with the use of progestogens. It is uncommon to see a decidual cast with the use of standard dose combined oral contraceptive pill however it is seen with continuous combined estrogen-progesterone pill use. In literature only 22 cases of membranous dysmenorrhea have been reported with only 5 cases related to use of some form of exogenous progestogens or combined estrogen-progesterone.

In our patient pregnancy was ruled out and hence combined continuous estrogen-progesterone pills were responsible for the decidual cast.

CONCLUSION

We conclude that in nonpregnant women on continuous combined estrogen-progesterone pills with complaints of severe cramping abdominal pain and bleeding with passage of tissue, membranous dysmenorrhea, though rare, should be suspected as a diagnosis.

We propose that decidual cast arises as a result of excess endometrial growth stimulated by hormonal influence. The nutrient supply at a point becomes insufficient to maintain the excessively grown endometrium resulting in its shedding in total. The resultant large and thickened endometrium causes hypersensitive uterine reflux to expel the cast causing severe dysmenorrhea which gets relieved after the cast is passed.

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