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CASE REPORT

Incidental Pelvic Endometriosis Detected During Cesarean Section in a Primigravida with Uterine Fibroid and Placenta Previa: A Case Report

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ABSTRACT

Endometriosis and uterine leiomyoma are gynaecological conditions that are influenced by hormonal and genetic factors.[1] Placenta previa has also been associated with abnormalities in endometrial function and implantation.[2] Although the coexistence of endometriosis and fibroids has been reported previously[3], the presence of endometriosis, leiomyoma, and placenta previa in the same patient is uncommon.[4] This case highlights the findings of a 32-year-old primigravida with a posterior wall uterine fibroid and Type III placenta previa in whom pelvic endometriosis was identified incidentally during cesarean section.[5] The patient had no previous symptoms suggestive of endometriosis and had conceived spontaneously.[6] During elective lower segment cesarean section at 37 weeks of gestation, multiple bluish-black deposits suggestive of endometriosis were noted over the posterior uterine serosa and bilateral uterosacral ligaments.[7] A healthy female infant was delivered, and the postoperative period was uneventful.[8] This case highlights the possibility of a relationship between these estrogen-dependent conditions.[9]

KEYWORDS

• Endometriosis • Leiomyoma • Placenta previa • Cesarean section • Pelvic endometriosis • Estrogen

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INTRODUCTION

Endometriosis is a chronic gynecological disorder characterized by the presence of endometrial-like tissue outside the uterine cavity.[10] It affects approximately 10% of women of reproductive age and commonly presents with dysmenorrhea, chronic pelvic pain, dyspareunia, or infertility.[11]

However, a proportion of women remain asymptomatic and may be diagnosed only during surgery performed for unrelated indications.[12]

Uterine leiomyomas are the most common benign tumors of the female reproductive tract. Like endometriosis, they are influenced by estrogen and progesterone and have been shown to share several molecular and genetic pathways.[13] Recent studies have suggested associations involving genes related to hormone signaling, angiogenesis, and tissue remodeling.[14]

Placenta previa is an important obstetric condition in which the placenta partially or completely covers the internal cervical os. Although its pathogenesis is multifactorial, abnormalities in implantation and endometrial receptivity have been proposed as contributing factors.[15]

We present a case of incidental pelvic endometriosis identified during cesarean section in a patient with uterine fibroid and placenta previa. The coexistence of these conditions may reflect common underlying biological mechanisms, although the exact relationship remains unclear.[3,1]

CASE REPORT

A 32-year-old primigravida with a spontaneously conceived pregnancy attended regular antenatal follow-up at our institution. Her early antenatal period was uneventful. She had no history of dysmenorrhea, chronic pelvic pain, dyspareunia, infertility, menstrual irregularities, or previous pelvic surgery. There was no known diagnosis of endometriosis prior to pregnancy.

A routine anomaly scan performed at 20 weeks of gestation revealed a 4 × 3 cm posterior wall uterine fibroid. The remainder of the examination was unremarkable. The patient continued routine antenatal care and remained asymptomatic throughout the pregnancy, consistent with the recognised occurrence of asymptomatic endometriosis in some women.[12,10]

Third-trimester ultrasonography demonstrated Type III placenta previa. In view of the placental location, elective lower segment cesarean section was planned at 37 weeks of gestation in accordance with standard obstetric management.[2,15]

During surgery, the previously identified posterior subserosal fibroid was confirmed. In addition, multiple bluish-black deposits were noted over the posterior uterine serosa and bilateral uterosacral ligaments. These lesions were considered suggestive of pelvic endometriosis based on their characteristic appearance.[7,10] As the patient had no previous symptoms and the finding was unexpected, the diagnosis had not been suspected preoperatively.[12,8]

A healthy female neonate was delivered with good Apgar scores. The postoperative course was uneventful. Both mother and baby recovered well and were discharged in stable condition.

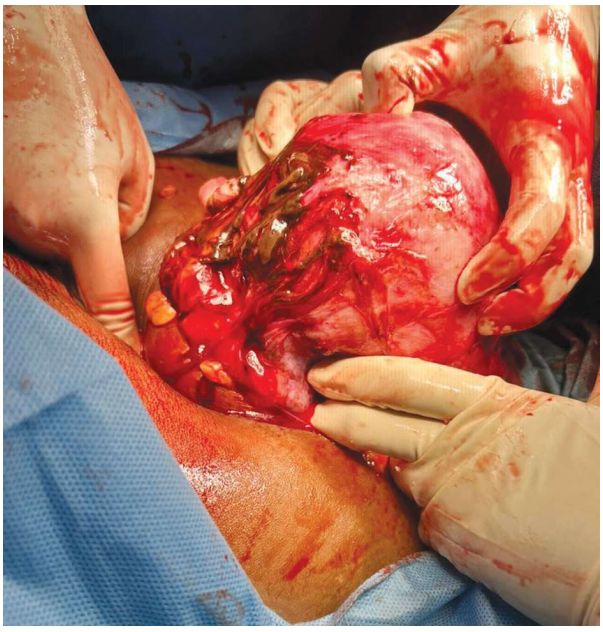


Figure 1: Brown-Black Endometrial deposits

DISCUSSION

Endometriosis and uterine leiomyoma frequently coexist in women of reproductive age.[1,7] Both conditions are estrogen-responsive and are characterised by abnormal cellular proliferation, inflammation, angiogenesis, and

extracellular matrix remodeling.[7,13] Several studies have identified overlapping molecular pathways and genetic susceptibility loci that may contribute to the development of both disorders.[7,13]

Genes such as WNT4, ESR1, ESR2, HOXA10, and VEGF have been implicated in the pathogenesis of endometriosis and leiomyoma.[7,13] These genes are involved in reproductive tract development, estrogen signalling, angiogenesis, and endometrial function.[7] Although the exact mechanisms remain incompletely understood, shared alterations in these pathways may partly explain why these conditions are often found together.[1,7]

The relationship between endometriosis and abnormal placentation has also attracted increasing attention.[2,9] Endometrial inflammation, altered uterine receptivity, and abnormal implantation have been proposed as possible mechanisms linking endometriosis with placental disorders.[2,13] Several studies have reported an increased risk of placenta previa among women with endometriosis, although the association remains under investigation.[2,9,11]

An interesting feature of the present case was the absence of symptoms suggestive of endometriosis. While pelvic pain and infertility are commonly associated with the disease, asymptomatic endometriosis is well recognised and may be discovered incidentally during abdominal or pelvic surgery.[8,12] This highlights the variable clinical presentation of the condition and the limitations of symptom-based diagnosis.[10,12]

The coexistence of endometriosis, uterine fibroid, and placenta previa in this patient is noteworthy. However, conclusions regarding causation cannot be drawn from a single case. Whether this association reflects shared pathogenic mechanisms or represents a coincidental finding remains uncertain.[1,2,7] Further studies involving larger patient populations are required to clarify these relationships.[5,9,15]

CONCLUSION

This case describes the incidental intraoperative detection of pelvic endometriosis during cesarean section in a primigravida with uterine fibroid and placenta previa. The patient had no prior symptoms suggestive of endometriosis, emphasizing that the disease may remain clinically silent and may be identified only during surgery performed for unrelated indications.[12,15]

The coexistence of endometriosis, uterine fibroid, and placenta previa in this patient raises the possibility of shared hormonal, molecular, and genetic mechanisms underlying these estrogen-dependent conditions. Although a causal relationship cannot be established from a single case, this report adds to the growing body of evidence suggesting an association between endometriosis, leiomyoma, and abnormal placentation.[1,2,7]

Recognition of such incidental findings is important, as it may influence postpartum counselling, long-term follow-up, and future reproductive planning. Further prospective studies involving larger patient populations are required to clarify the biological relationship between these conditions and to determine their implications for obstetric and gynecological practice.[5,9,15]

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