<Response to reviews and summary of changes made>

We are very grateful for the helpful and constructive comments of the editors and reviewers. All of our responses have been addressed below and are revised. Amended or newly added contents are highlighted.

Reviewer 1

Introduction

Adenomyosis is also a disease in postmenopausal women, so I would recommend to consider it a disease across the lifespan.

Answer) We deeply appreciate your advice. We revised the new manuscript as below.

Original manuscript (page 4, line 1-3)	Revised manuscript (page 4, line 5-6)
Adenomyosis is a common estrogen-dependent disease in women of reproductive age, causing heavy menstrual bleeding, intense pelvic pain, and infertility.	Adenomyosis is a commonly encountered estrogen-dependent disease in women across the lifespan, causing heavy menstrual bleeding, intense pelvic pain, and infertility.

It would be good to also mention the adenomyosis-related risks of obstetrical complications, such as uterine rupture, postpartum hemorrhage.

Answer) We deeply appreciate your advice. We revised the manuscript as below and cited Komatsu's paper as you recommended.

Original manuscript (page 4, line 2-7)	Revised manuscript (page 4, line 5-9)
Adenomyosis is a common estrogen-dependent disease in women of reproductive age, causing heavy menstrual bleeding, intense pelvic pain, and infertility [1]. Although adenomyosis was previously considered a disease of multiparous women, it also affects younger nulliparous women and may compromise their fertility potential. Adenomyosis may be related to spontaneous uterine rupture, a rare complication that can lead to hypovolemia and death.	Adenomyosis is a commonly encountered estrogen-dependent disease in women across the lifespan, causing heavy menstrual bleeding, intense pelvic pain, and infertility [1]. Adenomyosis is associated with an increased risk of many obstetrical complications, such as uterine rupture, postpartum hemorrhage and fetal growth restriction [2].

BMI is 34.7

Answer) We are grateful for the reviewer's point. We corrected the BMI to 34.7.

Original manuscript (page 4, line 18)	Revised manuscript (page 4, line 20)
The patient was obese (150 cm, 78 kg, BMI 20).	The patient was obese (150 cm, 78 kg, BMI 34.7).

Provide more detailed information about the patient.

Answer) We deeply appreciate your advice. We revised the manuscript reflecting your suggestion.

Original manuscript (page 4, line 17-27)	Revised manuscript (page 4, line 19 ~ page 5, line 2)
History and present illness The patient was obese (150 cm, 78 kg, BMI 20), had anemia, and complained of dysmenorrhea.	***History and present illness*** The patient was obese (150 cm, 78 kg, BMI 34.7) and complained of dysmenorrhea that suddenly occurred a month ago.

History of past illness The patient was suffering from heavy menstrual bleeding and was on ferrous sulfate medication for anemia. ***Personal and family history*** The patient was a virgin. She had no other significant personal or family history or previous surgical history.	***History of past illness*** The patient was suffering from irregular menstrual period, heavy menstrual bleeding and was on ferrous sulfate medication for anemia (hemoglobin levels 9.2 g/dL). She had no history of taking other medications, including oral contraceptives or hormonal agents. ***Personal and family history*** The patient was a virgin. She had no other significant personal or family history or previous surgical history. Menarche began at the age of 12.

Discussion

In the first part of the discussion, mention the obstetrical risks related to adenomyosis, especially rupture.

Answer) We appreciate your advice.

Original manuscript (page 6, line 17-18)	**Revised manuscript (page 6, line 25-28)**
Uterine rupture is an obstetric emergency with a high incidence of morbidity and mortality. It mostly occurs during the third trimester of pregnancy or delivery, with a prevalence rate of 0.05% in pregnant women.	Adenomyosis is a gynecologic disorder, associated with a high risk of obstetric complications and adverse pregnancy outcomes [12]. Uterine rupture is an obstetric emergency with a high incidence of morbidity and mortality. It mostly occurs during the third trimester of pregnancy or delivery, with a prevalence rate of 0.05% in pregnant women.

The importance of adenomyosis in adolescents should be discussed including the imaging options.

Answer) We are grateful for the reviewer's point. As you advised, we cited Exacoustos' paper and revised the manuscript.

Original manuscript (page 6, line 23-30)	Revised manuscript (page 7, line 5-16)
Spontaneous uterine rupture of an unscarred primigravid uterus is an extremely rare event [2, 5]. Nikolau et al. reported that nine of 12 cases of spontaneous uterine rupture were associated with adenomyosis [6]. Uterine adenomyosis involves the endometrial tissue growing into the uterine muscle wall of the uterus. This can cause painful menstrual periods, heavy bleeding, and pelvic pressure or discomfort. Adenomyosis is rare in adolescent females [7-12]. The exact cause of adenomyosis is unknown, but hormonal imbalances, uterine abnormalities, and certain medical conditions may increase the risk of this condition. Adenomyosis treatment may include medication or surgery in severe cases.	Spontaneous uterine rupture of an unscarred primigravid uterus is an extremely rare event. [13, 16] Nikolau et al. [8] reported that nine of 12 cases of spontaneous uterine rupture were associated with adenomyosis. Uterine adenomyosis involves the endometrial tissue growing into the uterine muscle wall of the uterus. This can cause painful menstrual periods, heavy bleeding, and pelvic pressure or discomfort. While adenomyosis mostly occurs in adult life, it can also involve adolescents in a mild to moderate form [17-23]. The exact cause of adenomyosis is unknown, but hormonal imbalances, uterine abnormalities, and certain medical conditions may increase the risk of this condition. Exacoustos et al. [17] suggested using ultrasound as a diagnostic tool for adenomyosis could avoid the need for histologic diagnosis and facilitate appropriate management. Adenomyosis treatment may include medication or surgery in severe cases [1, 22, 24, 25].

Conclusion

The conclusion should be shortened.

Answer) We appreciate your advice. As you advised, we shorted the conclusion. (85 words > 56 words).

Original manuscript (page 8, line 27 ~ page 9, line 5)	Revised manuscript (page 9, line 15-19)
Here we present an extraordinary case of spontaneous uterine rupture due to adenomyosis in a nulliparous adolescent. Adenomyosis is a disorder in which the endometrial glands and stroma within the myometrium and may be a potential risk factor for uterine rupture. Uterine rupture should be considered for all female patients with adenomyosis, regardless of gestational status and history. It should be clinically and radiologically distinguished from other neoplastic conditions. Early detection may lower the risk of associated infertility and adverse obstetric outcomes, including uterine rupture.	Here we present an extraordinary case of spontaneous uterine rupture due to adenomyosis in a nulliparous adolescent. Uterine rupture should be considered for all female patients with adenomyosis, regardless of gestational status and history. It should be distinguished from other neoplastic conditions and early detection may lower the risk of adverse obstetric outcomes, including uterine rupture.

Reviewer 2

Introduction

Add a number of reference to the second paragraph.

Answer) Thank you for your comments. We added references to the second paragraph. The revised manuscript is described below.

Original manuscript (page 4, line 8-11)	Revised manuscript (page 4, line 10-13)
Spontaneous uterine rupture due to adenomyosis in an adolescent and non-gravida female is extremely rare, with no cases reported in the literature. Here, we describe a unique case of uterine rupture due to adenomyosis with coexisting pulmonary endometriosis and review previously reported, similar cases.	Spontaneous uterine rupture due to adenomyosis in an adolescent and non-gravida female is extremely rare, with no cases reported in the literature. Here, we describe a unique case of uterine rupture due to adenomyosis with coexisting pulmonary endometriosis and review previously reported, similar cases [3-11].

Add more details about the used technique of abdominal CT.

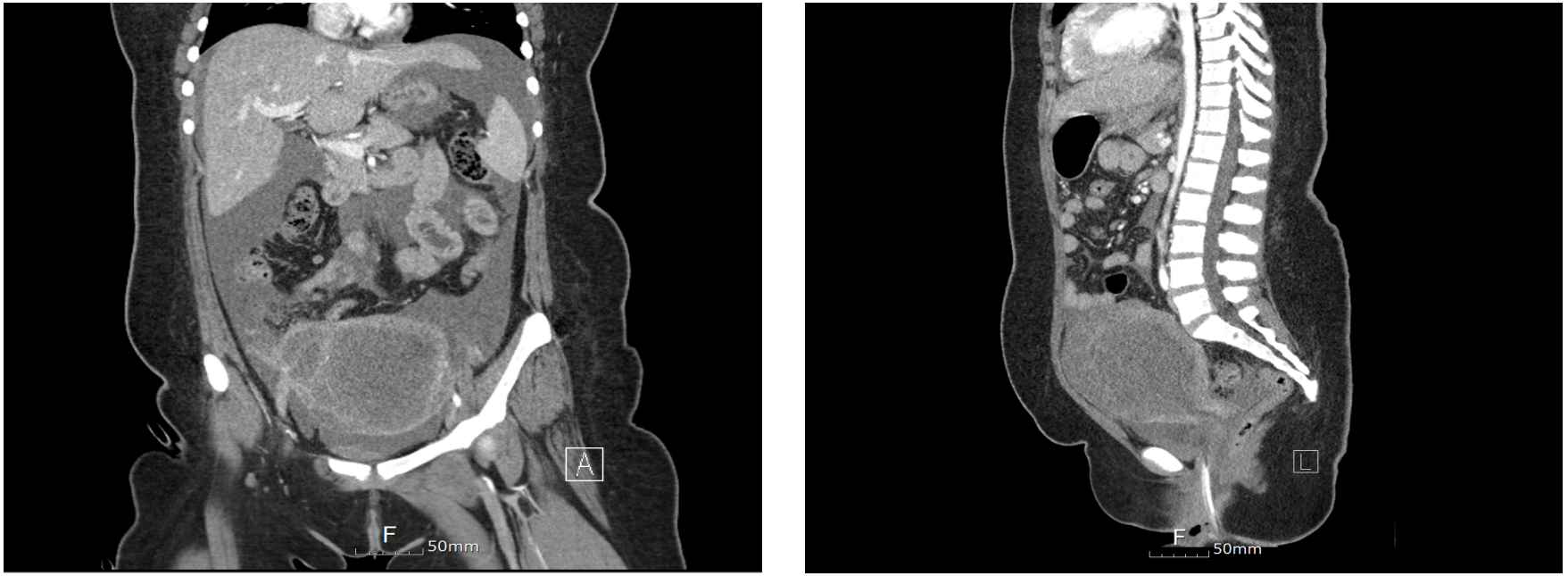
Answer) Thank you for your appropriate comments. There are not many changes in detail, but the sentence below has been modified.

Original manuscript (page 5, line 9-13)	Revised manuscript (page 5, line 14-16)
An abdominal CT (computed tomography) revealed a 13 x 12.5 x 10 cm heterogeneously enhancing mass in the uterine corpus (Figure 1), suggesting a uterine malignancy (uterine myoma sarcomatous change with lung metastasis) such as rhabdomyosarcoma or leiomyosarcoma.	An enhanced CT (computed tomography) scan of the entire abdominal pelvic cavity revealed a 13 x 12.5 x 10 cm heterogeneously enhancing mass in the uterine corpus, suggesting a uterine malignancy (sarcomatous change of uterine myoma with lung metastasis), such as rhabdomyosarcoma or leiomyosarcoma (Figure 1).

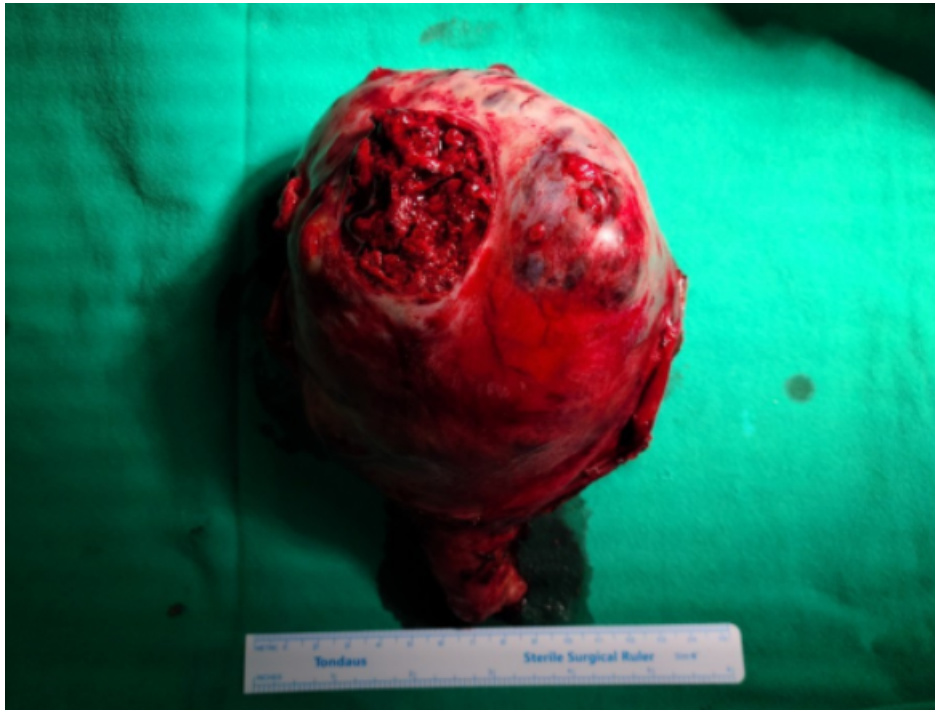
Add the sagittal reformat of abdominal CT for better demonstration of the lesion.

Answer) We are grateful for the reviewer's points. We added the additional CT scan (coronal and sagittal view, respectively) and also intraoperative photos.

Newly inserted abdominal CT scan (Figure 1)



Newly inserted operative findings (Figure 2)



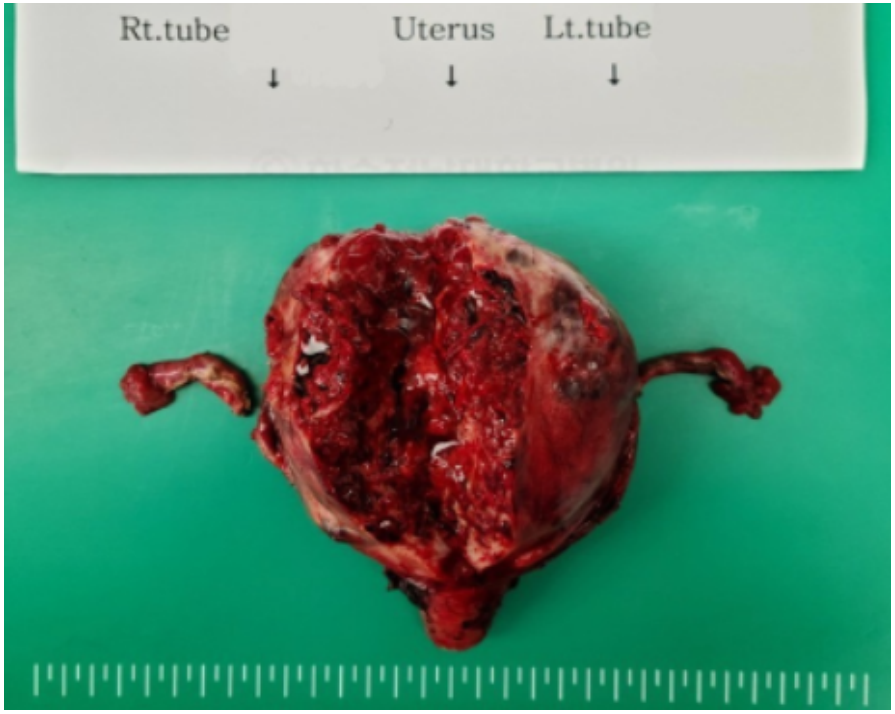


Figure 2. Operative findings.
Intraoperative findings revealed a huge necrotic mass with multiple uterine perforation.

Discussion

Add the number of reference immediately after the name of author.

Answer) We appreciate your advice. As you advised, the reference number is written right after the author's name.

Original manuscript (page 7, line 24-30)	Revised manuscript (page 8, line 9-18)
Azziz et al. reviewed 11 cases of uterine rupture, seven of which were associated with adenomyosis [18]. Uccella et al. reviewed the literature and found that 1 in 25 reported cases of prelabor spontaneous uterine rupture involved adenomyosis [21]. Mueller et al. reported a primigravida woman who experienced spontaneous uterine rupture at 18 weeks of gestation due to heavily decidualized adenomyosis [22]. Nikolaou et al. reported a case of rupture of an unscarred uterus caused by multiple foci of adenomyosis with a marked decidual reaction in the adenomyotic stroma [6]. Indraccolo et al. also reported a woman with uterine rupture caused by adenomyosis [23].	Azziz et al. [3] reviewed 11 cases of uterine rupture, seven of which were associated with adenomyosis. Uccella et al. [29] reviewed the literature and found that 1 in 25 reported cases of prelabor spontaneous uterine rupture involved adenomyosis. Mueller et al. [5] reported a primigravida woman who experienced spontaneous uterine rupture at 18 weeks of gestation due to heavily decidualized adenomyosis. Nikolaou et al. [8] reported a case of rupture of an unscarred uterus caused by multiple foci of adenomyosis with a marked decidual reaction in the adenomyotic stroma. Indraccolo et al. [9] also reported a woman with uterine rupture caused by adenomyosis.