

## **Reviewer #1**

### **Comment 1:**

Literature review concerning the case presented in this paper is insufficient. The authors should perform more detailed literature review of the similar cases to the patient presented in the paper.

### **Response:** Done

Instead of an expected solid ovarian lesion, our patient carried a low-grade appendiceal mucinous neoplasm (LAMN), which accounts for 1% of gastrointestinal neoplasms<sup>[5]</sup>. It is a low-grade dysplastic epithelial lesion that, by definition, lacks infiltrative invasion, which would be termed mucinous adenocarcinoma<sup>[6]</sup>. The PubMed search that we conducted on January 1<sup>st</sup>, 2021 identified 23 reports resembling our case (Table 1). A large case series indicates that the LAMN diagnosis is established at the median age of 61 years, being close to the age of our patient <sup>[7]</sup>. In terms of gender, literature reports a higher prevalence in females (female/male ratio varies from 7:1<sup>[8]</sup> to 1,4:1<sup>[9]</sup>). Similarly, ovarian carcinoma occurs at the median age of 63 years<sup>[10]</sup>. Regarding the clinical presentation, ovarian cancer typically produces symptoms in late and advanced stages, including non-specific pelvic/abdominal pain, bloating, urinary urgency or frequency)<sup>[11,12]</sup>. In the same manner, appendiceal mucocoele that mimic an adnexal mass most commonly presents as pelvic/abdominal pain<sup>[13]</sup>. The complications of LAMN include intussusception, volvulus, small bowel or ureteral obstruction, rupture and mucinous ascites, i.e. pseudomyxoma peritonei. The ovarian etiology assumption by routine and epidemiological/clinical overlap can easily influence an erroneous diagnosis. Preoperatively, LAMN is commonly misdiagnosed as acute appendicitis or an adnexal mass<sup>[14]</sup>, as it happened with our patient. Differential diagnosis may also include mucinous adenocarcinoma of the appendix and high-grade appendiceal mucinous neoplasm, pelvic foreign body and subserous uterine fibroid. Literature

consistently reinforces the idea that the presence of a right-sided adnexal mass should bring up the possibility of an appendiceal neoplasm<sup>[15,16]</sup>. Interestingly, cases of left-sided appendiceal neoplasm mimicking an adnexal mass have been recently reported as well<sup>[17,18]</sup>.

**Comment 2:** The authors should state whether the continuity between the tumor and intestinal tract was observed on ultrasound and MRI.

**Response:** Stated

**Comment 3:** In Figure 1C, the tumor and the right ovary should be shown by arrows, respectively.

**Response:** Done.

**Comment 4:** The authors also should show microscopic (histological) pictures of the lesion showing LAMN.

**Response:** Done.