

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^[5]. It is a low-grade dysplastic epithelial lesion that, by definition, lacks infiltrative invasion, which would be termed mucinous adenocarcinoma^[6]. The PubMed search that we conducted on January 1st, 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 ^[7]. In terms of gender, literature reports a higher prevalence in females (female/male ratio varies from 7:1^[8] to 1,4:1^[9]). Similarly, ovarian carcinoma occurs at the median age of 63 years^[10]. 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)^[11,12]. In the same manner, appendiceal mucocele that mimic an adnexal mass most commonly presents as pelvic/abdominal pain^[13]. 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^[14], 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^[15,16]. Interestingly, cases of left-sided appendiceal neoplasm mimicking an adnexal mass have been recently reported as well^[17,18].

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.