Appendicular mucocele mimicking a right adnexal mass – a case report and literature review

Nicolae Bacalbasa1,2, Irina Balescu3, Claudia Stoica4,5, Cristina Martac6, Valentin Varlas1,7, Andrei Voichitoiu1,8, Lucian Pop1,8, Sorin Petrea8, Mihaela Vîlcu8,10, Iulian Brezean8,10, Corina Grigoriu1,11

1Department of Obstetrics and Gynecology, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania
2Department of Visceral Surgery, Center of Excellence in Translational Medicine, Fundeni Clinical Institute, Bucharest, Romania
3Department of Visceral Surgery, Ponderas Academic Hospital, Bucharest, Romania
4Department of Anatomy, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania
5Department of Surgery, Ilfov County Emergency Hospital, Bucharest, Romania
6Department of Anesthesiology, Fundeni Clinical Institute, Bucharest, Romania
7Department of Obstetrics and Gynecology, Filantropia Clinical Hospital, Bucharest, Romania
8Department of Obstetrics and Gynecology, “Alessandrescu-Ruseescu” National Institute of Mother and Child Care, Bucharest, Romania
9Department of Surgery, “Dr. I. Cantacuzino” Clinical Hospital, Bucharest, Romania
10Department of Ob gyn, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania
11Department of Obstetrics and Gynecology, Emergency University Hospital, Bucharest, Romania

ABSTRACT

The correct diagnostic of a cystic lesion at the level of the right iliac fossa in women can be hard to be established in certain cases, different pathological lesions having similar imagistic aspects and being associated with similar biological modifications. In such cases the final diagnostic is established intraoperatively and the type of surgery can be significantly modified. The aim of the current paper is to report a 63 year old woman with preoperative diagnostic of right ovarian mass who was submitted to surgery in order to have a total hysterectomy and bilateral adnexectomy; however intraoperatively the cystic lesion developed at the level of the right iliac fossa proved to be an appendicular tumor and was successfully resected by performing a radical right hemicolec tomy.

Keywords: ovarian cyst, appendicular mucocele, CA 125, right iliac fossa cystic mass

INTRODUCTION

The presence of abdominal pain at the level of the right iliac fossa might represent a significant diagnostic dilemma especially in women. Therefore, in such cases the most important differential diagnostics which should be discussed are represented by appendicitis, appendicular tumor, ovarian cyst or tumor, extraterine pregnancy and pyosalpinx [1]. However, the final diagnostic might be difficult to be established preoperatively, the final diagnostic being an intraoperative surprise which enables the surgeon to completely modify the therapeutic plan as well as the surgical procedure. The aim of the current paper is to report the case of a 63 year old patient investigated for diffuse abdominal pain at the level of the right iliac fossa and in whom the preoperative diagnostic was of an adnexal cystic mass.

CASE REPORT

The 63 year old previously healthy patient was investigated for abdominal pain at the level of the right iliac fossa and she was submitted to an abdominal and respectively transvaginal ultrasound which demonstrated the presence of a 14/13 cm cystic mass at the level of right adnexal area. The patient was further submitted to a pelvic magnetic resonance imaging which confirmed the presence of a 14/10/15 cm mass originating probably at the level of the
right adnexa. The bioumoral studies revealed a slightly increased level of CA125 measuring 75 U/ml. In this respect, after discussing with the patient the fact that the most probable diagnostic was of a right ovarian cystic tumor decision was taken to perform a total hysterectomy with bilateral adnexectomy. However, the intraoperative surprise was represented by the fact that the right iliac fossa cystic mass originated in fact from the appendix while the right adnexa was perfectly normal. Therefore, the surgical procedure was converted into a right radi-
cal colectomy with ileo-colic anastomosis (Figures 1-4). The histopathological studies confirmed the presence of a low potential malignant appendicular mucocele while the postoperative outcome was a simple one, the patient being discharged in the third postoperative day.
DISCUSSIONS

The differential diagnostic of adnexal masses includes multiple entities such as ovarian cysts, tubal or tubo-ovarian abscesses, extrauterine pregnancy; meanwhile, excepting gynecological disorders, the most commonly diagnostic which should be excluded is originating from the gastrointestinal sphere is represented by appendicular tumors [2]. When it comes to appendiceal mucocoele, it represents a gastrointestinal malignancy which is more commonly encountered in postmenopausal women and which might be associated with common symptoms such as right iliac fossa pain, and, in rare cases, with atypical signs such as vaginal bleeding [3-5]. Interestingly, less than 30% of appendiceal mucinous tumors are correctly identified during the preoperative investigations, most of them being misdiagnosed as adnexal masses at transvaginal or transabdominal ultrasound or even at computed tomography or pelvic magnetic resonance imaging [6].

Another interesting subject which should be discussed is the one of the value of CA125 in differentiating appendiceal mucocoele by ovarian cysts; unfortunately, increased values are encountered in both pathologies and therefore, a modification of the serum values of CA 125 should not be considered as pathognomonic for an ovarian pathology; however, in cases in which the right fossa mass originates from the digestive tract (including the appendix) a slightly increased serum level of carcinoembryonic antigen (CEA) might orientate the diagnostic [7,8].

When it comes to the most appropriate therapeutic strategy in such cases, different strategies have been proposed; therefore, if during a laparoscopic exploration for right fossa mass a appendiceal mucocoele is found, while certain authors consider that conversion to open surgery is mandatory, other authors consider that the procedure can be finalized in a minimally invasive manner if effraction and intraperitoneal spillage can be prevented [9,10]. However, irrespective to the approach type, peritoneal cytology should be retrieved and if malignant cells are encountered, hyperthermic intraperitoneal chemotherapy should be proposed; meanwhile in such cases certain authors consider bilateral oophorectomy mandatory due to the possible tumoral contamination of the ovaries [11,12].

When it comes to the risk of recurrence after resection of appendiceal neoplasms and to the main follow up methods, it seems that a combination between imagistic studies and serum levels of tumor markers such as CEA and CA 125 might be useful in order to assess remission or reaparition of the disease [13].

CONCLUSIONS

Establishing the right diagnostic in a postmenopausal woman presenting a tumoral mass at the level of the right inguinal area remains a veritable challenge especially due to the fact that similar symptoms, biomoral modifications and imagistic findings might be encountered. Therefore, in a significant number of cases the final diagnostic remains to be established intraoperatorically. However, once an appendicular mucocoele is found, the intraoperative approach and the final therapeutic decision is taken accordingly to the extent of the disease.

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