

输卵管 - 卵巢脓肿误诊为卵巢恶性肿瘤一例

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摘要

病史摘要:患者,女,48岁,因“下腹痛2周,扪及盆腔包块1周”就诊于我院。患者2周前经期出现下腹隐痛,伴腹泻,无发热,无腹胀,无异常阴道流液等不适。腹泻症状持续3天后自行好转。1周前患者扪及下腹部包块,质硬,平脐,伴肛门坠胀感。影像学检查提示:卵巢恶性肿瘤可能性大。排除手术禁忌后行手术治疗,术中诊断为:输卵管 - 卵巢脓肿。术后予以抗生素抗感染治疗。专科检查:阴道内见少许白色分泌物,无腥臭味;宫颈光滑,质韧,盆腔扪及实质性包块,大小约20*20 cm,双侧达盆壁,上极平脐,下极达子宫直肠陷凹,活动性差,压痛明显,未扪及双侧附件区。直肠指诊:进指3 cm处可触及质硬包块,活动度差,界限不清,凸向直肠,退指指套无血染。诊断方法:妇科超声、盆腔核磁共振等影像学检查,肿瘤标志物,术中所见及术后病理。治疗方法:排除禁忌后行手术治疗,术后予以对症治疗。临床转归:患者术后恢复可,无发热,无阴道流血等不适。适合阅读人群:妇科,普外科,影像科。

关键词

附件包块, 卵巢恶性肿瘤, 输卵管 - 卵巢脓肿, 盆腔炎性疾病

A Case of Tubo-Ovarian Abscess Disguising as Ovarian Malignancy

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Abstract

Summary of case history: A 48-year-old woman was admitted to our hospital due to “Lower abdo-

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minal pain for 2 weeks, palpable pelvic mass for 1 week". 2 weeks ago, she presented with progressively aggravated abdominal pain and diarrhea without fever during menstruation. Diarrhea Symptoms disappeared after 3 days. One week ago, the patient had palpable mass in the lower abdomen, hard and flat umbilicus, accompanied by a sense of anal distension. The pelvic ultraso-nograms illustrated complex pelvic masses highly suspicious for neoplasm. Surgical exploration revealed tubo-ovarian abscess. Antibiotic anti-infection treatment was given after operation. Symptoms and signs: There was a little white secretion in vagina, no peculiar smell. The cervix was smooth and tough. Solid and hardly removable mass was palpable in the pelvic cavity with a size of about 20*20 cm, bilateral reaching pelvic walls, the upper flat to the umbilical cord, the lower reaching uterine rectum depression, while bilateral adnexal areas were untouched. Digital rectal examination: hard mass can be touched at 3 cm into the finger, immovable and unclear boundary, convex to the rectum. No blood stained on the back finger sleeve. Diagnostic methods: Based on auxiliary examination results such as gynecological ultrasound, pelvic magnetic resonance imaging and tumor markers, the diagnosis was confirmed by intraoperative findings and postoperative pathology. Therapeutic methods: After eliminating contraindications, surgical treatment was performed. And symptomatic treatment was given after surgery. Clinical outcomes: The patient has recovered after treatment without fever, vaginal bleeding and other discomfort. It's suitable for reading: department of gynecology, general surgery and imaging.

Keywords

Adnexal Mass, Ovarian Malignancy, Tubo-Ovarian Abscess, Pelvic Inflammatory Disease

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1. 引言

附件包块可发生在女性的各个年龄段，发病率约为 5%~10%。在育龄期女性中，绝大多数附件包块为良性，而恶性肿瘤发生率相对较低[1]。盆腔内弥漫性感染有时可伪装成恶性肿瘤。输卵管 - 卵巢脓肿(tubo-ovarian abscess, TOA)是盆腔炎性疾病一种严重并发症，可发生于一侧或两侧附件，多位于子宫后方或子宫、阔韧带后叶。典型的 TOA 表现为附件包块、发热、白细胞计数升高、下腹疼痛和/或异常的阴道分泌物[2]。现报道伪装成卵巢恶性肿瘤的输卵管 - 卵巢脓肿一例。

2. 临床资料

患者，女，48岁，因“下腹痛伴腹泻 2周，扪及盆腔包块 1周”就诊于我院。2周前出现经期下腹隐痛，伴腹泻，无发热，无腹胀，无异常阴道流液等不适。腹泻症状持续 3天后自行好转，下腹痛逐渐加重，1周前扪及下腹部包块，质硬，平脐，伴肛门坠胀感。3天前外院行 B 超检查提示：盆腔内探及囊实性包块，内回声不均，考虑卵巢恶性肿瘤。自发病以来，患者体重下降 4kg。既往史：2012 年外院行“腹腔镜下左侧卵巢囊肿剥除术”，术后恢复可。月经及婚育史：月经欠规律，6~7 天/3~4 月，量中，痛经(-)，末次月经：2021-10-25；孕 1 产 1，25 年前顺产一男婴，体健；现离异，自诉无性伴侣。专科检查提示：外阴发育正常，阴毛呈三角形分布，大、小阴唇对称，阴道畅，见少许白色分泌物，无腥臭味；宫颈光滑，质韧，盆腔扪及实质性包块，大小约 20*20 cm，双侧达盆壁，上极平脐，下极达子宫直肠陷凹，活动性差，压痛明显，未扪及双侧附件区。直肠指诊：进指 3 cm 处可触及质硬包块，活动度差，界限不清，凸向直肠，退指指套无血染。入院后完善相关辅助检查，实验室检查：血常规：白细胞 10.43

$\times 10^9/L$, 中性粒细胞百分比 78.90%, 血红蛋白浓度 93.00 g/L, CA125 72.50 (参考值 0~38) U/ml, HE4 (附睾蛋白 4) 83.82 (参考值 ≤ 76.2) pmol/L, CA199、AFP (甲胎蛋白)、CEA (癌胚抗原) 正常。B 超提示: 宫腔内膜厚 3.3 mm。宫颈形态正常。双侧卵巢未探及。盆腔内探及巨大囊实性包块, 上自宫底水平, 下至子宫直肠窝内, 内回声不均匀, 与周围组织及子宫后壁分界不清, 囊性部分内透声欠佳, 内见细密点状高回声, 实性部分内见条状血流信号; 下腹 CT 提示: 1) 下腹部肠管部分走行紊乱, 肠壁轻度强化; 2) 肠系膜及腹膜不均匀增厚, 转移? 3) 腹水(如图 1)。盆腔核磁提示: 1) 卵巢恶性肿瘤并腹膜转移可能; 2) 盆腔内多发肿大淋巴结(如图 2)。

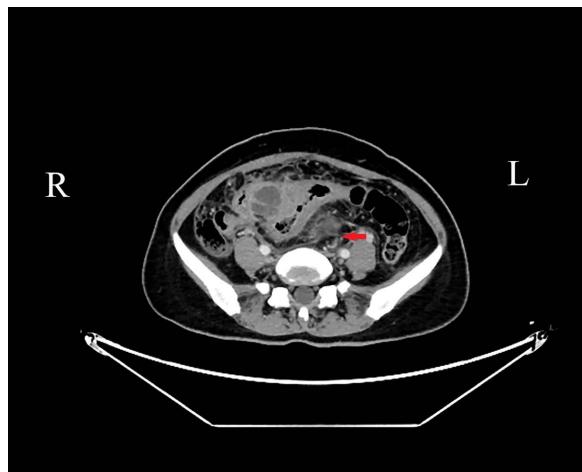


Figure 1. CT of the lower abdomen (Arrow noticing uneven thickening of the mesentery and peritoneum)
图 1. 下腹部 CT (箭头所示: 肠系膜及腹膜不均匀增厚)

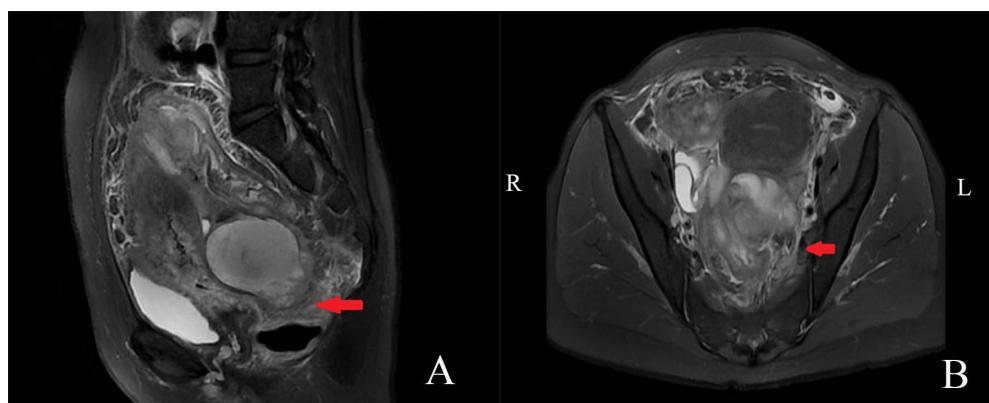


Figure 2. Pelvic MRI ((A) Indistinct boundary between lesion and adjacent bowel; (B) Mixed signal shadow of pelvic mass)
图 2. 盆腔 MRI (箭头所示: (A) 病灶与邻近肠管分界不清; (B) 盆腔内团块状混杂信号影)

根据患者的临床症状、实验室及影像学检查, 考虑卵巢恶性肿瘤并腹膜转移。排除手术禁忌后, 拟行腹腔镜探查术, 根据探查结果决定下一步治疗方案。2021-11-15 腹腔镜下见: 大网膜与前腹壁广泛膜状疏松粘连, 钝性分离粘连后, 将粘连于前腹壁之大网膜松解。检查大网膜增厚质硬, 与膀胱子宫反折腹膜致密粘连, 大网膜将子宫及双侧附件完全包裹其中, 钝性分离大网膜, 见盆腔内广泛粘连, 形成多个脓腔, 见黄绿色脓液, 结肠与子宫双侧附件粘连成团, 阑尾增粗肿大。由于腹腔镜下组织结构暴露困难, 术中同患者家属交待病情建议中转开腹, 患者家属表示知情同意并签字。将大网膜于腹壁、盆腔完全分离, 切除质硬、炎性大网膜组织。钝性、锐性分离粘连右下腹肠管并清除表面炎性组织。再次探查

盆腔，双侧附件炎性水肿、积脓。术中诊断为输卵管-卵巢脓肿。将子宫及双侧卵巢、输卵管游离后检查，双侧卵巢输卵管与周围组织致密粘连，表面水肿见脓性渗出，切除双侧输卵管、卵巢。术后反复冲洗腹腔及盆腔，子宫直肠陷凹放置滴水双套管于右下腹引出并固定。术后病理提示：双侧附件呈急慢性炎伴脓肿形成。术后予以腹腔冲洗双套管负压引流及抗生素抗感染治疗。

3. 随诊

患者术后恢复可，无发热，无腹痛、腹泻，无阴道流血等不适。

4. 讨论

附块包件的来源、良恶性及是否为病理性改变对选择相应的治疗方式至关重要。CA125 是目前应用最广泛的肿瘤标志物。然而它的敏感性和特异性在绝经前的妇女中较低，因为 CA125 升高也可以出现在子宫内膜异位症、盆腔炎性疾病(pelvic inflammatory disease, PID)、妊娠及非妇科恶性肿瘤中[3]。《澳大利亚家庭医师》的指南将 $CA125 > 250 \text{ U/ml}$ 作为将有附件包块的绝经前女性转诊至妇科肿瘤专科的阈值[4]。HE4 在浆液性和子宫内膜样卵巢癌中阳性率最高，达 90%；透明细胞癌次之，达 50%，黏液性卵巢癌中阳性率较低。与绝经期妇女相比，绝经前女性 HE4 鉴别附件包块良、恶性的敏感性降低，而特异性升高[5]。CA125 和 HE4 联合检测可增加卵巢癌诊断的准确性[6]。若 CA125 和 HE4 同时升高，则需警惕恶性病变可能，同时考虑手术治疗[6][7]。超声是评估附件包块最常用的影像学方法，但手术其检测到的附件病变中约有 18% 至 31% 仍不确定。在临床实践中我们可使用 O-RADS MRI (卵巢 - 附件报告数据系统磁共振成像)评分提高阳性及阴性预测值，以避免不必要的手术[8][9]。

回顾本病例，虽然鉴别诊断中包括输卵管卵巢脓肿，但迅速进展的临床病程、炎性指标仅轻度升高、CA125 及 HE4 的升高及影像学检查不足以排除卵巢恶性肿瘤。遂决定行腹腔镜探查术，根据术中探查及术后病理决定下一步诊疗方案。最终患者诊断为 TOA。TOA 是一种累及输卵管、卵巢及周围结缔组织的炎性肿块，占 PID 的 15% [10]。TOA 的危险因素与 PID 相似，包括育龄期女性、宫内节育器、性生活活跃和 PID 既往史等[11]。然而 Julie Hakim 等人的研究提出 TOA 并不局限于性活跃的女性[12]，TOA 可发生于无性行为的青春期，也可存在于绝经期[13]。TOA 患者可能会出现发热及严重的腹痛及盆腔痛，增多并呈脓性的阴道分泌物，若伴有盆腔腹膜炎，可出现消化系统症状如腹胀、腹泻等；少数患者无症状或症状轻微。若脓肿破裂，患者可出现高热、寒战等感染性休克的症状。

由于 TOA 临床表现差异较大，临床诊断的准确率不高。且目前附件炎性包块尚无敏感且特意的临床特征及实验室指标。ESR (红细胞沉降率)、CRP (C-反应蛋白)升高及白细胞数目增多可提示 PID。有研究指出，40% 的 TOA 患者体温和白细胞计数正常[14]。Omer Demirtas 等人认为： $ESR > 19.5 \text{ mm/1/2 h}$ 和 $CRP > 11.5 \text{ mg/L}$ 是 TOA 的最佳预测指标[15]。超声具有一定的诊断价值，必要时可行 CT 及 MRI 协助诊断。MRI 对伴有 PID 临床症状或体征和白细胞增多的 TOA 或卵巢脓肿的诊断具有很高的准确性。而 DW-MRI 在对影像学上与卵巢恶性肿瘤相似的 TOA 的诊断方面优于 MRI，具有极高的阳性及阴性预测值[14]。

约 25%~30% 的患者对单独的药物治疗无效，需要手术干预[16]。Zeynep Ozturk Inal 等人的研究表明：影像学提示双侧或复杂的多囊肿， $ESR > 61.0 \text{ mm/h}$ ， $CRP > 24.5 \text{ mg/dL}$ 及肿块 $> 6.5 \text{ cm}$ 是侵入性手术治疗的指标[17]。超声或 CT 引导下引流是手术治疗的首选方法[17][18]。对于重度 TOA 的患者，腹腔镜手术比剖腹手术更有临床优势[19]。

Rashmi Kudesia 等人也报道了罕见的播散性腹腔内沙门氏感染导致的 TOA，而影像学提示卵巢恶性肿瘤可疑的相关病例[20]。由于附件炎性包块临床表现差异巨大，故临床诊断性不高。面对附件包块患者，尤其当病史中提示患者合并胃肠道或其他系统感染症状时，我们应高度警惕 PID 可能。因此，盆腔肿块的术前评估和诊断对于妇产科医生来说仍然是至关重要的巨大挑战。

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知情同意

本病例报告和相关图片已获得患者的书面知情同意。

利益冲突声明

所有作者均声明本研究不存在利益冲突。

参考文献

- [1] Zhang, Z., Bullock, R.G. and Fritzsche, H. (2019) Adnexal Mass Risk Assessment: A Multivariate Index Assay for Malignancy Risk Stratification. *Future Oncology*, **15**, 3783-3795. <https://doi.org/10.2217/fon-2019-0479>
- [2] Curry, A., Williams, T. and Penny, M.L. (2019) Pelvic Inflammatory Disease: Diagnosis, Management, and Prevention. *American Family Physician*, **100**, 357-364.
- [3] Zhang, M., Cheng, S., Jin, Y., et al. (2021) Roles of CA125 in Diagnosis, Prediction, and Oncogenesis of Ovarian Cancer. *Biochimica et Biophysica Acta—Reviews on Cancer*, **1875**, Article ID: 188503. <https://doi.org/10.1016/j.bbcan.2021.188503>
- [4] Yeoh, M. (2015) Investigation and Management of an Ovarian Mass. *Australian Family Physician*, **44**, 48-52.
- [5] Hada, A., Han, L.P., Chen, Y., et al. (2020) Comparison of the Predictive Performance of Risk of Malignancy Indexes 1-4, HE4 and Risk of Malignancy Algorithm in the Triage of Adnexal Masses. *Journal of Ovarian Research*, **13**, 46. <https://doi.org/10.1186/s13048-020-00643-6>
- [6] Wang, H., Liu, P., Xu, H., et al. (2021) Early Diagnosis of Ovarian Cancer: Serum HE4, CA125 and ROMA Model. *American Journal of Translational Research*, **13**, 14141-14148.
- [7] Dochez, V., Caillou, H., Vaucel, E., et al. (2019) Biomarkers and Algorithms for Diagnosis of Ovarian Cancer: CA125, HE4, RMI and ROMA, a Review. *Journal of Ovarian Research*, **12**, Article No. 28. <https://doi.org/10.1186/s13048-019-0503-7>
- [8] Meys, E.M., Kajser, J., Kruitwagen, R.F., et al. (2016) Subjective Assessment versus Ultrasound Models to Diagnose Ovarian Cancer: A Systematic Review and Meta-Analysis. *European Journal of Cancer*, **58**, 17-29. <https://doi.org/10.1016/j.ejca.2016.01.007>
- [9] Thomassin-Naggara, I., Poncelet, E., Jalaguier-Coudray, A., et al. (2020) Ovarian-Adnexal Reporting Data System Magnetic Resonance Imaging (O-RADS MRI) Score for Risk Stratification of Sonographically Indeterminate Adnexal Masses. *JAMA Network Open*, **3**, e1919896. <https://doi.org/10.1001/jamanetworkopen.2019.19896>
- [10] Granberg, S., Gjelland, K. and Ekerhovd, E. (2009) The Management of Pelvic Abscess. *Best Practice & Research Clinical Obstetrics & Gynaecology*, **23**, 667-678. <https://doi.org/10.1016/j.bpobgyn.2009.01.010>
- [11] Kinay, T., Unlubilgin, E., Cirik, D.A., et al. (2016) The Value of Ultrasonographic Tubo-Ovarian Abscess Morphology in Predicting Whether Patients Will Require Surgical Treatment. *International Journal of Gynecology & Obstetrics*, **135**, 77-81. <https://doi.org/10.1016/j.ijgo.2016.04.006>
- [12] Hakim, J., Childress, K.J., Hernandez, A.M., et al. (2019) Tubo-Ovarian Abscesses in Nonsexually Active Adolescent Females: A Large Case Series. *Journal of Adolescent Health*, **65**, 303-305. <https://doi.org/10.1016/j.jadohealth.2019.02.009>
- [13] Chen, K.Y., Tseng, J.Y. and Yang, C.Y. (2019) Tubo-Ovarian Abscess with Sepsis in a Nonagenarian Woman: A Case Report and Literature Review. *BMC Women's Health*, **19**, Article No. 81. <https://doi.org/10.1186/s12905-019-0782-6>
- [14] Wang, T., Li, W., Wu, X., et al. (2016) Tubo-Ovarian Abscess (with/without Pseudotumor Area) Mimicking Ovarian Malignancy: Role of Diffusion-Weighted MR Imaging with Apparent Diffusion Coefficient Values. *PLoS ONE*, **11**, e0149318. <https://doi.org/10.1371/journal.pone.0149318>
- [15] Demirtas, O., Akman, L., Demirtas, G.S., et al. (2013) The Role of the Serum Inflammatory Markers for Predicting the Tubo-Ovarian Abscess in Acute Pelvic Inflammatory Disease: A Single-Center 5-Year Experience. *Archives of Gynecology and Obstetrics*, **287**, 519-523. <https://doi.org/10.1007/s00404-012-2600-3>
- [16] Chappell, C.A. and Wiesenfeld, H.C. (2012) Pathogenesis, Diagnosis, and Management of Severe Pelvic Inflammatory Disease and Tuboovarian Abscess. *Clinical Obstetrics and Gynecology*, **55**, 893-903. <https://doi.org/10.1097/GOF.0b013e3182714681>

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- [17] Inal, Z.O., Inal, H.A. and Gorkem, U. (2018) Experience of Tubo-Ovarian Abscess: A Retrospective Clinical Analysis of 318 Patients in a Single Tertiary Center in Middle Turkey. *Surgical Infections (Larchmt)*, **19**, 54-60.
<https://doi.org/10.1089/sur.2017.215>
 - [18] Goje, O., Markwei, M., Kollikonda, S., et al. (2021) Outcomes of Minimally Invasive Management of Tubo-Ovarian Abscess: A Systematic Review. *Journal of Minimally Invasive Gynecology*, **28**, 556-564.
<https://doi.org/10.1016/j.jmig.2020.09.014>
 - [19] Shigemi, D., Matsui, H., Fushimi, K., et al. (2019) Laparoscopic Compared with Open Surgery for Severe Pelvic Inflammatory Disease and Tubo-Ovarian Abscess. *Obstetrics & Gynecology*, **133**, 1224-1230.
<https://doi.org/10.1097/AOG.0000000000003259>
 - [20] Kudesia, R. and Gupta, D. (2011) Pelvic Salmonella Infection Masquerading as Gynecologic Malignancy. *Obstetrics & Gynecology*, **118**, 475-477. <https://doi.org/10.1097/AOG.0b013e31821cf8e>