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G1级阑尾神经内分泌肿瘤致急性阑尾炎1例

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摘　要

神经内分泌肿瘤(NET)在全身多个器官或组织均可发生，虽然阑尾NET比较少见，但却是阑尾最常见的肿瘤。这种肿瘤的临床特征并不特异，与急性炎症的临床特征高度相似。相比之下，急性阑尾炎是一种常见的手术指征，多是由阑尾腔梗阻引起的。然而，阑尾NET的术前诊断是非常困难的。在本病例中，报告了一例45岁男性患者，在紧急阑尾切除术后通过组织病理学检查被诊断为阑尾NET，分级为G1，行右半结肠切除术后好转出院。

关键词

神经内分泌肿瘤，阑尾，治疗，预后

One Case of Acute Appendicitis Caused by G1 Grade Neuroendocrine Tumor of the Appendix

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Abstract

Neuroendocrine tumors (NETs) can occur in multiple organs or tissues throughout the body, and although appendiceal NETs are relatively rare, they are the most common tumor in the appendix. The clinical features of this tumor are not specific and highly similar to those of acute inflammation. In contrast, acute appendicitis is a common surgical indication, often caused by appendiceal obstruction. However, preoperative diagnosis of appendiceal NET is very difficult. In this case, a 45

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years old male patient was reported who was diagnosed with appendiceal NET and graded as G1 through histopathological examination after emergency appendectomy.

Keywords

Neuroendocrine Tumors, Appendix, Treatment, Prognosis

1. 引言

神经内分泌肿瘤(NET)最常见于胃肠道。先前的流行病学研究表明，小肠、直肠和阑尾是最容易发生NET 的部位[1] [2]。阑尾 NET 是阑尾肿瘤最常见的类型。即便如此，就患病率而言，阑尾 NET 是一种相对罕见的疾病[3]。由于缺乏具体和标准化的临床指南、实验室或影像学资料进行诊断，术前诊断阑尾 NET 仍然异常困难。大多数阑尾 NET 是在对切除后的阑尾进行病理检查时偶然诊断出来的。在一项包含 2724 例急诊阑尾切除术的系列研究中，不到 1%的标本在组织病理学上显示为 NET；在另一系列研究中，14 年间 14,850 名接受阑尾切除术的患者中，1.45%的患者经组织学证实为 NET [4] [5]。因此，它很容易被误诊为急性或慢性阑尾炎。因此，这些人通常需要根据肿瘤的大小进行第二次手术。本病例报告了一例由阑尾 NET 引起的成人急性阑尾炎的罕见病例。

2. 病例资料

患者，男，45 岁，160 cm，53 kg，因右下腹疼痛 1 天至当地县医院就诊，完善相关检查后诊断为急性阑尾炎，行阑尾切除术后腹痛不缓解，术后病理检查示：阑尾神经内分泌肿瘤，遂至我院进一步治疗，患病期间，无恶心、呕吐，无寒战、发热，无腹胀、腹泻，无周身黄染、尿色加深等症状。门诊以“阑尾肿瘤”收住入院。患者自发病以来，精神、饮食、睡眠可，二便正常，体重无明显变化。入院诊断：1) 阑尾肿瘤(神经内分泌瘤)；2) 阑尾术后。查体：腹部饱满，未见明显胃肠型及蠕动波，脐正常，腹式呼吸减弱。腹部柔软，右下腹压痛，无反跳痛，无液波震荡，无震水声，腹部未触及肿块，无肌紧张。肝脏肋下未触及。胆囊肋下未触及，无压痛，Murphy 征阴性。脾脏未触及。肾脏未触及。肝浊音界存在，肝上界位于右锁骨中线第 7 肋间，移动性浊音阴性，双肾区无叩痛。肠鸣音减弱，3~4 次/分，无气过水声，未闻及腹部血管杂音。辅助检查：心电图：窦性心动过缓。[*肿瘤标志物(CA19-9)]：糖类抗原 12565.79 U/ml，肝肾功、电解质、血糖血脂、血常规、凝血功能、术前九项、二便常规均无明显异常。腹部 CT (见图 1)示：盲肠末端短条状致密影，多系阑尾术后改变。胸片未见异常。病理检查(见图 2)：肉眼所见：收到宾川县人民医院病理编号 2024-2934HE × 3 张 + IHC × 10 张。诊断意见：[阑尾]神经内分泌肿瘤(G1 级)。局部浸润至阑尾浆膜层。未见确切脉管及神经侵犯。原单位提供免疫组化结果：肿瘤细胞 Vimentin(−)，CK(+)，CK7(−)，CK20(−)，Villin(+)，CDX-2(+)，Syn(+)，Cg-A(+)，CD56(+)，KI67(+<2%)。排除手术禁忌症后行右半结肠切除术，术后好转出院。术后病理检查(见图 3)：肉眼所见：右半结肠切除标本：小肠长 7 cm，断端直径 2.2 cm，结肠长 13 cm，断端直径 2.5 cm，阑尾残端长 3 cm，直径 0.8~1 cm，肠粘膜皱襞清晰，未见明显息肉及肿物，肠周脂肪大小 21 × 7 × 3 cm，其内查见直径 0.1~0.6 cm 的结节 20 枚，全。诊断意见：右半结肠切除标本：(阑尾残端)肿瘤已切除，残余阑尾呈急性化脓性炎改变，局部坏死，

未见肿瘤残留。小肠及结肠肠壁充血、水肿，伴淋巴细胞、中性粒细胞浸润及成纤维细胞增生，未见肿瘤累及。肠周脂肪内淋巴结未见癌转移(0/23)。

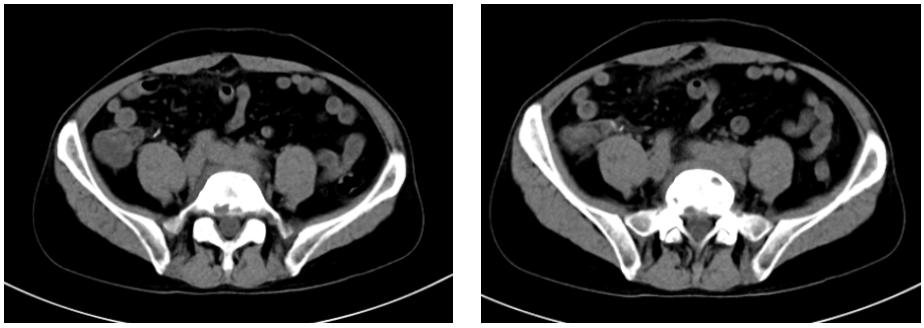

Figure 1. CT examination
图 1. CT 检查

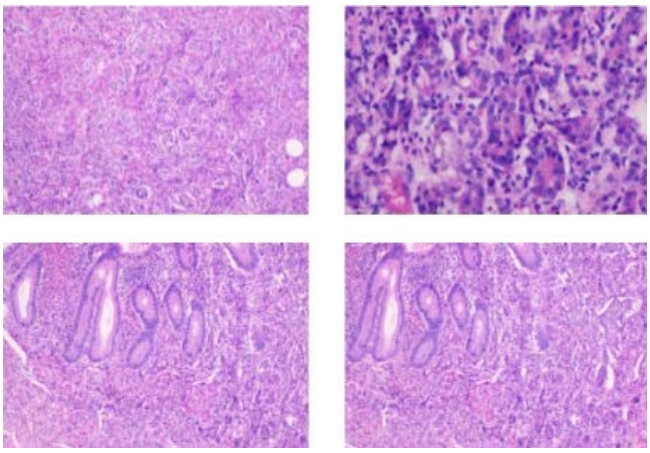

Figure 2. Pathological examination upon admission
图 2. 入院病理组织检查

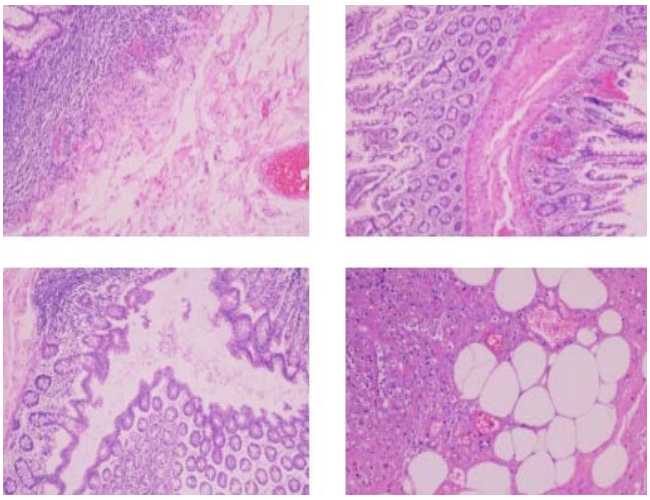

Figure 3. Postoperative pathological tissue examination
图 3. 术后病理组织检查

3. 讨论

急性阑尾炎是全球最常见的外科急症之一[6]。这是阑尾黏膜层的急性炎症过程，向浆膜扩张，最常见的原因是儿童淋巴组织增生或成人粪便引起的管腔梗阻[7]-[9]。其他原因包括纤维闭塞、嗜酸性粒细胞浸润、寄生虫、放线菌病、结核病、克罗恩病、子宫内膜异位症、憩室炎、异物和良性或恶性肿瘤[7] [8] [10]-[13]。原发性阑尾肿瘤是一种罕见的实体瘤，根据肿瘤类型和分期，具有不同的病理生理学和广泛的死亡率。世界卫生组织将阑尾恶性肿瘤分为上皮性(粘液性、非粘液性腺癌和印戒细胞肿瘤)和非上皮性病变(神经内分泌肿瘤[NET]、淋巴瘤和肉瘤) [14]。阑尾 NET 占阑尾肿瘤的 65%，仅占阑尾切除术标本的 0.5%至 1%，其中大多数是偶然的[15]。NET 是一种罕见且生长缓慢的肿瘤，起源于胃肠道和支气管肺系统的肠嗜铬细胞[16]。胃肠系统中神经内分泌细胞的比例最大[10]。阑尾 NET 是罕见的肿瘤，年发病率为 0.4~0.6/100,000 [17]。流行病学研究表明，阑尾是胃肠道 NET 的第三大常见部位(16.7%)，仅次于小肠(44.7%)和直肠(19.6%) [18]-[20]。它通常起源于位于固有黏膜的上皮下神经内分泌细胞[21] [22]，其好发部位似乎是阑尾的尖端，其次是体部和根部[23]。阑尾 NET 通常发生在 42.7 岁，略早于其他胃肠道 NET，因为它起源于神经内分泌细胞。神经内分泌细胞在婴儿期分布密集，密度下降的峰值出现在大约 30 岁时[24]。Obendorfer 在 1907 年将这种疾病命名为小肠类癌。从那时起，NET 被称为类癌，被认为是良性的。然而，随着对 NET 的临床病理学研究的不断增加，其恶性肿瘤的多样性得到了认识，并且 NET 不再被视为类癌，如世界卫生组织组织病理学分类 2000 年修订版所述[25]。

阑尾 NET 通常无症状或表现为急性阑尾炎，由于肿瘤部分阻塞阑尾腔而反复腹痛，并在手术中偶然诊断出来。肿瘤的中位直径为 6 毫米(3~17 毫米)。位于阑尾尖端且尺寸小于 10 毫米的肿瘤通常会出现急性阑尾炎的症状，而位于阑尾底部且尺寸大于 20 毫米的肿瘤可能会出现腹膜炎的临床症状[26]。一些患者可能会因右下腹肿块和胃肠道出血等症状入院，但其他患者可能会出现 NET 综合征，如间歇性潮红、紫脸、腹泻、哮喘发作和休克[27]。Thorson 及其同事在 1954 年写了关于 NET 综合征的临床表现[28]。NET 综合征发生在不到 10%的阑尾 NET 患者中(<2%的阑尾 NET 肝转移患者)。当阑尾 NET 产生的血管活性物质进入体循环，避免肝脏退化时，就会出现这种综合征[29]。NET 综合征经常表明肿瘤已经进展到晚期。由于缺乏具体的临床表现，因此这种疾病的术前诊断非常困难。目前，阑尾炎阑尾切除术或其他腹腔手术干预后必须通过病理检查确认。对于阑尾切除术后意外发现阑尾 NET 的患者，应评估包括血清素、色氨酸和 5-羟基吲哚乙酸在内的参数的实验室检查。还应进行各种形式的影像学检查，如胸部 X 射线、超声波和腹部 CT [30]，以排除转移。

治疗的主要原则是手术，手术切除的范围根据肿瘤的大小、位置和转移状态来确定。值得注意的是，肿瘤的大小是预测侵袭的最可靠指标，因此也是决定手术方法类型的最重要因素。此外，一般认为，位于阑尾尖端和中部直径 ＜1 cm 的肿瘤更有可能呈现良性肿瘤的生物学特征，不会发生转移，仅需要行阑尾切除术[22]。然而，对于直径直径 ＜ 1 cm 的阑尾根部肿瘤，尤其是年轻患者，建议进行回盲切除术。相比之下，直径 ＞ 2 cm 的肿瘤通常具有恶性肿瘤的生物学特征，远处转移的发生率为 20%~85%。目前普遍认为应进行右半结肠根治性切除术，尽管 Ciarrocchi 等人[27]先前提出肿瘤大小不应被视为右半结肠切除术的绝对指征。对于直径为 1~2 cm 的肿瘤，最佳手术方法仍然存在争议[22] [31] [32]此外，对于位于阑尾尖端或主体且未浸润浆膜或淋巴结的肿瘤，可以简单地进行阑尾切除术而不会出现并发症[22]。

根据 Ki-67 增殖指数和有丝分裂率(被认为是 Meta-stasis 和复发的预测因素)，世界卫生组织在 2010 年将阑尾 NET 分为 G1 [Ki-67 < 2%，有丝分裂速率 ＜2/10 高功率场(HPF)]和 G2 [Ki-67 为 3%~20%，有丝裂速率为 2~20 HPF] [22]。之前的许多研究表明，G1 级和 G2 级阑尾 NET 的临床进展相对稳定，只有少数病例显示出侵袭性[33]。大多数阑尾 NET 患者处于早期，因此预后极佳。仅局限于局部疾病，5 年

总生存率估计在95%至100%之间[5] [20] [34]。尽管大小与生存率有关，但一项研究报告称，与大小为1至2厘米的肿瘤相比，小于1厘米的肿瘤的5年总生存率没有差异[20]。2厘米或更大的肿瘤的5年生存率为70.5% [35]。局限性疾病患者的五年生存率估计在78%至100%之间[33]-[36]。不幸的是，出现远处转移的患者面临着相对较差的5年生存率，不到25%，中位生存期为31个月[20] [34] [37]。

4. 结论

阑尾NET很少见，缺乏具体的临床表现。大多数患者的症状与急性或慢性阑尾炎相似，很容易被误诊。本病例旨在强调，阑尾NET不应被忽视，因为它是急性阑尾炎的一种不寻常原因。本病例就是被诊断为急性阑尾炎行手术切除后被偶然发现，诊断为G1级，行右半结肠切除术后未见转移，好转出院。

声　明

该病例报道已获得病人的知情同意。

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