

超声诊断巨大毛发性胃结石一例及文献复习

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摘要 目的:探讨毛发性胃结石的影像表现、临床特点及治疗。方法:回顾性分析1例毛发性胃结石患者的临床资料,结合文献报道,对其影像、临床表现和治疗方法进行探讨。结果:患者为一女性患儿,上腹痛不适半年余,既往有拔毛癖,超声诊断胃巨大毛发性结石,内镜证实后开腹手术,取石成功,随访痊愈。结论:毛发性胃结石与其它胃结石相比,影像表现、临床特点无明显差异,超声检查可提供可靠的诊断提示,治疗需取出结石以消除症状,并注意心理干预,防止复发。

关键词: 毛发性胃结石;超声

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Imaging Diagnosis of Large Gastric Trichobezoar: A Case Report and Literature Review

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ABSTRACT Objective: To investigate the imaging manifestations, clinical features and treatment of large gastric trichobezoar.

Methods: The clinical data, imaging findings and treatment of large gastric trichobezoar in one case was retrospectively analyzed with literature review. **Results:** The child, abdominal pain more than half a year, was diagnosed with large gastric trichobezoar by ultrasound scan. A throughout anamnesis revealed a trichotillomania with trichophagia. Surgery was in form of a laparotomy with gastrotomy through which the mass was evacuated after endoscopic technique confirmed. She was discharged with follow-up remained well. **Conclusion:** There are no significant differences about imaging manifestations and clinical features between large gastric trichobezoar and other gastric bezoars. The ultrasonic inspection may provide important findings. The aim of treatment is to remove the bezoar and prevent recurrence. It is also recommended that these patients should be evaluated and followed up in a psychiatric clinic.

Key words: Gastric trichobezoar; Ultrasonography

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毛发性胃结石是一种比较少见的消化道结石,一经发现,需要取出结石以消除症状。现报道本院收治病例1例,并结合文献,对其临床表现、影像特点及治疗方法作探讨。

1 临床资料

1.1 病史简介

患儿,女,7(10/12)岁,以"间断性上腹部疼痛半年余"入院。近半年上腹阵发疼痛不适,以左上腹及剑突下为著,不伴恶心、呕吐、呕血、黑便,休息后可缓解,症状逐渐加重,家长曾带其到多家医院检查,外院超声曾提示"腹腔内大血管旁多发肿大淋巴结",遂按"肠系膜淋巴结炎"治疗后症状无缓解。既往有拔毛癖、异食癖病史4年,2年前患儿顶枕部出现斑秃。查体:一般情况佳,营养中等,生长发育如常,头顶部、枕部大片状脱发斑,部分区域可见短小毛发长出,腹平坦,左上腹可触及直径约8.0cm不规则包块,轻度压痛,边界清晰,活动度可,胃部叩诊无震水音,移动性浊音阴性,肝脾肋下未及,肠鸣音正常。实验室检查:血常规:红细胞 $5.07 \times 10^{12}/L$,白细胞 $5.72 \times 10^9/L$,

血红蛋白140g/L。粪常规及肝功均无异常。

1.2 影像学检查

以"腹痛原因待查"行上腹部超声检查,肝、胆、胰、脾均未见异常,腹腔内未见游离积液暗区;左上腹腹腔内显示一长约5.1cm弧形强回声光带,后方伴清晰的宽大声影,饮水500ml后复查,胃前壁结构层次清晰,该弧形强回声光带位于胃腔内,边缘毛糙,边缘部可见多数纤细光带、光条回声漂浮于液腔,膝胸卧位,弧形光带与胃前壁相贴(见图1-3)。超声诊断考虑为胃结石(毛发团)。腹平片可见上腹部不规则形高密度影,部分突出于膈留液平之上(见图4)。

1.3 治疗

门诊行胃镜检查,见食管贲门未见异常,胃内巨大毛发样结石团,结石较大,且因患儿不配合,无法观察全貌,内镜下无法实施取石术。遂收住入院,于全麻下行胃切开取石术,术中探查见胃内有一大约 $15 \times 5 \times 5 \text{cm}^3$ 毛发缠绕的致密包块(见图5),呈胃型,外表见多量胃黏液,毛发内缠有食物残渣,胃内粘膜光滑,未见溃疡等异常。术后患者恢复良好,复查腹部平片(见图6),较前相比,胃内原高密度影消失。皮肤科会诊后予对症治疗斑秃,出院后于心理门诊定期干预。一年后随访时拔毛癖、异食癖痊愈,腹痛消失,结石无复发。

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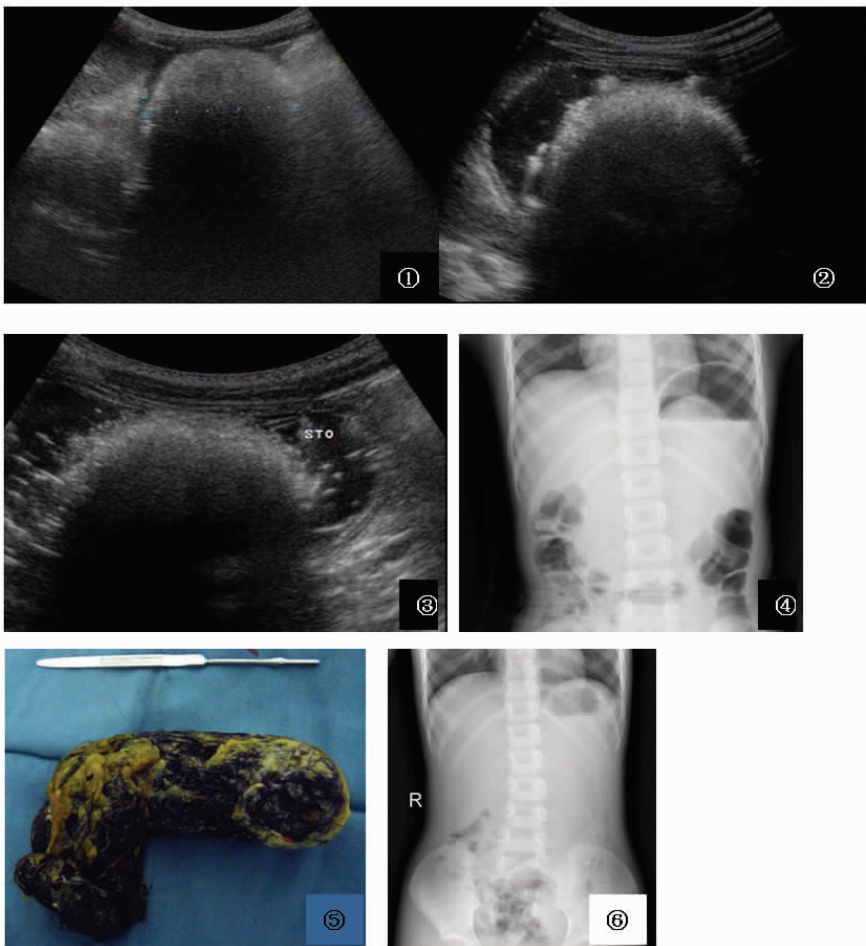


图 1-3 超声显示左上腹腹腔内弧形强回声光带,后方伴清晰的宽大声影。饮水 500ml 后复查,其位于胃腔内,边缘部见多数纤细光带、光条回声漂浮于液腔。图 4 腹部平片显示上腹部不规则形高密度影,部分突出于潴留液平面之上。图 5 术中见胃内一毛发缠绕的致密包块,呈胃型。

图 6 术后复查腹部平片胃内原高密度影消失。

Figure 1-3 Ultrasound scan in the epigastrium demonstrates echogenic image with hyperechoic arclike surface casting clear posterior acoustic shadow. After drinking 500ml water, it is in the region of the stomach with edge of slim band floated in the fluid. Figure 4 Radiograph of abdomen showing space occupying mass in stomach with an air-fluid level, and part of the outstanding above the liquid surface. Figure 5 Photograph shows trichobezoar that was removed through a gastrotomy. Note the exact shape of the stomach. Figure 6 An intraluminal mass disappears postoperative.

2 讨论及文献复习

胃结石临床较少见,毛发性胃结石消化道症状与其它胃结石相似,由于胃石早期并无典型症状,多数是偶然发现,因此很难判断胃石准确的形成时间及最初形成的形态、质地等情况,结石成分与胃肠道内粘液、食物残渣凝结呈硬块,久之多呈铸型状,并可能迁移至远端肠道,影响胃肠道的蠕动及生理机能。

2.1 胃结石分类

根据胃结石的主要组成成分,可将胃结石分为以下几种^[1]:植物结石,由未消化的水果、蔬菜组成的,多数不易消化,如柿子、黑枣等;毛发结石,主要是毛发团,常致密,内混有食物残渣;乳类结石,多见于早产儿,消化功能不完善,为追赶生长等频繁食入高度浓缩的配方食物;药物结石,常见于部分缓释药物的肠衣所致,一般结石较小。

2.2 病因

局部胃肠道解剖结构的改变及胃肠道蠕动生理机制的改变是结石的好发因素。胃结石常继发于以下疾病^[2]:胃部分切除或胃迷走神经切断术后(S.G.Koulas^[3]文中 57%胃结石患者术前有胃手术史,可能机制是术后胃排空延迟)、糖尿病胃轻瘫、各种涉及胃肠的减肥手术、格林巴利综合症、肌强直性营养不良、甲状腺功能减低症、呆小症、精神疾病、无齿患者等。

精神心理异常及拔毛癖等常是毛发性胃结石的危险因素,该患儿入院后多次追问病史,家长证实孩子平时不善言谈,一个人时常偷偷拔自己的头发吃掉,自从出现斑秃后才引起家长的注意。

缺铁性贫血患者病程较久时,会出现明显缺铁的症状,部分患者会出现异嗜癖,以吃泥沙、纸片、毛发等常见,继而结石形成,造成毛发性胃结石^[4,5]。本文患者仅存在单纯的拔毛癖,并未合并有缺铁贫。

2.3 临床表现

毛发性胃结石的症状与其它种类胃结石的症状有相似之处,以消化道症状为主,病程的阶段、结石的大小、结石的部位、单发或多发等因素使临床表现多样化。

早期症状不典型,定位不清的腹痛、上腹不适、神经性厌食、全身乏力、头痛、虚弱、体重减轻等都有可能出现。随着结石的长大,食管受影响产生吞咽困难、吞咽疼痛、胃液返流所致胸骨后疼痛,间断性胃排空受阻出现口臭、阵发性恶心、餐后呕吐、饱胀感及上腹痛,结石刺激导致慢性粘膜炎,结石摩擦使黏膜破损,以及胃石压迫胃壁黏膜使之缺血,甚至胃糜烂、溃疡产生出血^[6],常见于胃小弯侧,若长期慢性出血并吸收功能受影响,可引起贫血^[7]。本文患者仅仅出现上腹部间断性疼痛,其他症状并未出现。

如果结石部分碎裂,迁移并定植于远端的小肠部位,可有明显的部分性或完全性肠梗阻,甚至胃肠穿孔并腹膜炎^[8]。结石长期摩擦胃肠黏膜,继发胃肠功能紊乱,还可能出现肥大性胃炎、胃息肉、蛋白丢失性脂肪泻^[9],若胃肠道内本身压力过大或远端梗阻可能导致肠壁间气肿,甚至气肿型胃肠炎^[11]。

其它罕见的首发症状也可能出现。压力增大致肠壁水肿,胰管、胆管梗阻,引起胰腺炎及黄疸^[10]。另一例^[11]患者以呼吸道感染就诊,发热咳嗽,左侧胸痛,继之出现左侧胸腔积液,胸部平片显示胃腔内不透声团块,进一步检查,胃内毛发性结石大弯侧穿孔,左侧膈下积液,炎症扩散至左肺下叶。所以,胃肠道结石并发症的鉴别诊断比较困难。

2.4 影像特点

影像诊断时,需要注意是否有其它节段胃肠道并发结石的可能,或破裂的结石团移植于远端的结石,术后也需要影像学的复查,与术前进行对比。

超声及CT是诊断毛发性胃结石的主要方法,具有特征性表现,二者诊断价值同样可靠^[12]。超声可见胃肠腔内弧形铸型强回声光带,后方伴清晰的声影,强回声由毛发及其内的食物残渣、气体等不透声介质所致^[13],饮水后见致密团块位于胃肠腔内,边缘可见纤细光带漂浮液体内。CT可以有效显示胃内结石的范围,表现为不规则形筛网状团块,口服造影剂后会出现同心圆状的改变^[14],并可勾勒出结石轮廓外形,CT还可显示胃壁改变,有无肠间积液及穿孔可能。

常规放射平片、钡餐亦可诊断部分结石,平片可以显示扩张的胃影内斑驳的不透光软组织团块,钙化的存在常可描绘出肿块边缘。钡餐可用于非梗阻性患者的检查,但比较费时,典型表现是肠腔内充盈缺损,近端肠管扩张积液,钡餐检查可以发现迁移定植于远端小肠的额外结石灶,亦可以用于术后复查有无结石残留。

磁共振MRI表现多样,与结石的内容物相对比例有关,空气、脂肪、水及残留的食物渣具有不同的信号特点,部分胃炎、溃疡及穿孔亦可检测到,但由于价格较贵,常不做选择^[15]。

胃腔是胃石形成的主要部位,由于形成的胃石体积较大,不能通过幽门,因而容易滞留在胃腔内,曾报道胃毛发性结石延伸至小肠、甚至整个小肠,成为Rapunzel综合症(长发公主综合症)^[16],会导致肠套叠、肠穿孔,这种情况下,CT及MRI能有效显示结石的全貌。

2.5 治疗

毛发性胃结石的治疗目的,在于取出结石消除症状,术后防止结石复发,术式的选择取决于结石的大小、类型、部位及患者的潜在危险因素。

内镜可以直视肿块的范围,是胃及小肠的选择性诊断手段,部分较小结石可予以取石治疗,但大多数肿块发现时已经很大,或存在多发的远端卫星结石灶不能施行^[19]。本例由于结石太大,患儿亦不配合,内镜下难以治疗。

开腹手术仍然是常见的治疗术式,尤其穿孔者需开腹手术,胃切开取石术、胃造口术等具体术式的选择由外科医生综合决定。

体外震波碎石或内镜下激光微爆炸燃烧、内镜下超声波碎石等也是可选择的治疗^[20],但较少采用。腹腔镜由于微创等特点具有广阔的应用前景^[21,22]。小的碎片状结石可以使用药物治疗,乙酰半胱氨酸、纤维素酶等溶解结石,然后促胃肠动力药排石也具有一定的作用。

胃毛发性结石一定要结合精神心理干预治疗,家庭、学校氛围的改善,使患者性格改变,心理完善,才能有效防止结石复发。

日常工作中在行腹部常规超声检查时,如发现左中上腹区强回声光团伴后方声影应考虑胃结石可能,饮水后在胃充盈状态下在检查,可使胃结石诊断准确可靠。

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