

·病例报告·

超声诊断水晶球致小儿肠梗阻3例

李晓英 杨秀珍 徐彬 叶菁菁

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消化道异物主要发生在婴幼儿期。对于金属异物或不透射线异物,可以通过腹部平片或CT检查显示其是否存在及大致位置,但对透射线异物却较难诊断。本文回顾性分析了浙江大学医学院附属儿童医院2017年10月至2017年12月收治的3例水晶球异物患儿的临床资料,以探讨超声在术前诊断中的作用。

3例中,男童2例,女童1例;年龄分别为9个月、11个月和1岁6个月。2例分别因呕吐2d和5d就诊,1例因腹痛伴呕吐3d就诊。1例呕吐为胃内容物;1例初起呕吐为胃内容物,后转为胆汁样物;1例呕吐以胃内容物为主,含少量胆汁样物。体格检查:3例均略有腹胀,1例全腹轻压痛,2例无明显压痛,3例均未发现反跳痛,未触及腹部包块,未见肠型,肝脾不大。血常规均未见明显异常。X线检查均有肠梗阻征象。超声均显示扩张与萎瘪肠管交界处肠腔内圆球形无回声区,边缘光滑,壁薄,多切面扫查与肠管壁不相延续,内部透声较好(图1)。扩张肠管内见较多液体回声。2例为单个圆球形无回声区,直径分别为2.8cm和3.2cm,1例见3个圆球形无回声区(图2),直径约2.9cm,内未见血流信号。肠间隙可见积液深度约1.5~2cm,透声好。术前超声诊断存在异物的可能。3例均行CT检查,提示肠梗阻征象和梗阻点,但未见明显肿块。2例经保守治疗1d,1例



图1 9个月女童,超声显示肠管内圆形无回声区,边缘光滑,周围肠管水肿增厚 图2 1岁6个月男童,超声显示肠管内2个圆形无回声区,形态规则,壁薄 图3 11个月男童,术中所见及取出的球形异物

Fig.1 Abdominal ultrasound indicated a rounded anechoic foreign body with thin and clear wall in a 9-month-old girl. Peripheral intestinal tube became edematous and thickened Fig.2 Abdominal ultrasound indicated two rounded anechoic foreign bodies with thin and clear walls in a 18-month-old boy Fig.3 A water crystal ball was removed intraoperatively from a 11-month-old boy

保守治疗5d后,病情未见缓解,后行剖腹探查术。手术所见:腹腔内见清亮渗液,1例异物位于空肠,2例位于回肠,分别距离回盲部10cm和50cm,近端肠管扩张,充血水肿明显。术中成功取出异物水晶球(图3)。术后诊断为消化道异物。

讨论 消化道异物是儿科常见的误食疾病,较小异物可经消化道随食物排出体外,但较大或尖锐的异物常不能通过消化道的狭窄部位,引起多种消化道并发症,严重可致死亡。多数消化道异物患儿由于引起消化道并发症,如疼痛、急腹症或肠梗阻等就诊,而儿童及家属大多不能提供明确的异物摄入史,因此寻求高效安全、及时准确的诊断方法显得尤为重要。X线及纤维内镜是诊断消化道异物的常用方法,近年来,多层螺旋CT检查也逐渐应用于消化道异物的诊断^[1]。

已有文献表明,超声诊断稽留软组织异物的敏感度可达57%~83%,特异度达88%~95%^[2]。Yang等^[3]报道超声在诊断阴道异物的敏感度和特异度分别为81%和53%,根据异物性质表现为不同的声像图特征,推荐超声检查作为阴道异物的首选诊断方法。而超声在肠道异物诊断的报道较少。本报道中的球形异物为近几年较为流行的儿童玩具“吸水水晶球”,其颜色鲜艳。干燥时直径约3mm,在水中浸泡后会逐渐胀大,直径可达30~40mm。干燥时小球很容易通过食管和胃,随着小球吸水逐渐胀大,进入肠道后导致肠梗阻。这种小球内容物为大量水,因此超声表现为无回声,与扩张的肠管内液体相似,因此行腹部X线和CT检查仅表现为肠梗阻征象,未能有异物显影。而超声对此类小球的显示非常清晰。本组3例患儿超声均清晰显示异物的位置以及与周围脏器的关系,及继发病变包括黏膜水肿、肠梗阻。通过文献回顾,作者共检索到国外仅5例肠道水晶球的报道^[4,5,6]。然而,无一例在术前作出正确诊断。其中1例误诊为肠重复畸形,1例误诊为卵巢囊肿,另外3例因弥漫性腹膜炎进行手术探查。李静涛等^[7]亦报道了6例消化道水晶球异物,认为相比其他异物,水晶球异物术前诊断较困难。本文首次报道在术前用超声明确诊断肠道异物,并且精细描述了水晶球的超声图像特征。水晶球异物的声像图特点易与腔内型肠重复畸形相混淆,需要通过仔细观察肿物与肠管壁的相互关系,肿物的形态特征及肿物的壁是否具有“强-弱-强”肠管壁样结构来进行鉴别。

超声作为一种非侵袭性,无辐射,方便,经济的检查方法,在消化道异物的诊断中也可起到重要作用,可以作为儿童消化道异物的常规检查方法。

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作者单位:浙江大学医学院附属儿童医院超声科(浙江省杭州市,310000)

通信作者:叶菁菁,Email:6195005@zju.edu.cn

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