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论著

小探头超声内镜联合CT检查对较大胃黏膜下肿瘤治疗方案选择的价值

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[摘要] **目的** 评价小探头超声内镜联合CT检查对较大胃黏膜下肿瘤诊疗中的作用,以此指导临床治疗方案的选择。**方法** 小探头超声内镜发现胃黏膜下肿瘤52例,超声剖面直径≥20 mm,结合腹部64排螺旋CT检查,判断肿瘤的位置、来源、周围及远处器官转移等情况,对腔内生长未累及浆膜的肿瘤行ESD治疗,对侵及浆膜和向腔外生长的行腹腔镜或剖腹手术治疗,所有切除标本送常规病理检查及免疫组化检测,半年后对患者进行胃镜及CT随访。结合疗效来评价小探头超声内镜联合CT检查在较大胃黏膜下肿瘤治疗过程中的作用。**结果** 良性间质瘤20例,恶性间质瘤16例,平滑肌瘤5例,异位胰腺6例,脂肪瘤5例,CT提示30例腔内生长,未侵犯浆膜,无周围器官转移,予内镜下ESD治疗,仅有2例穿孔,经钛夹夹闭和保守治疗好转。其余22例CT检查为腔内及腔外生长予外科手术或腹腔镜治疗。术后3个月复查,所有病变愈合好,无复发。**结论** 小探头超声内镜联合CT对较大胃黏膜下肿瘤进行检查,可获得较准确的病变情况,对胃黏膜下较大的肿瘤治疗方案的选择具有重要的指导意义。

[关键词] 小探头超声内镜;体层摄影术,X线计算机;黏膜下肿瘤
[中图法分类号] R735.2;R445.1;R814.42 [文献标志码] A

Role of miniprobe endoscopic ultrasonography combined with CT scanning in diagnosis and treatment of large gastric submucosal tumors

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[**Abstract**] **Objective** To evaluate the role of miniprobe endoscopic ultrasonography combined with CT examination in diagnosis and treatment of large gastric submucosal tumors (SMT). **Methods** Fifty-two cases of SMT with ultrasound cross-section diameter not less than 20 mm detected by miniprobe endoscopic ultrasonography combined with abdominal 64-slice CT examination were collected to determine the location of tumor invasion, depth, origin and surrounding and distant organ metastasis. The gastric submucosal tumors growing in gastric lumen without involving gastric serosa were treated with endoscopic submucosal dissection (ESD). The tumors invading gastric serosa and growing to the outside of gastric lumen were treated with laparoscopy or laparotomy. All the resected specimens were sent to routine pathological examination and immunohistochemistry. All the patients were followed up by gastroscopy and CT after six months. The role of miniprobe endoscopic ultrasonography combined with CT examination in the diagnosis and treatment of large gastric SMT was evaluated based on the efficacy. **Results** There were 20 cases of benign stromal tumor, 16 cases of malignant stromal tumor, 5 cases of leiomyoma, 6 cases of ectopic pancreas and 5 cases of lipoma. CT examination showed 30 cases of gastric submucosal tumors growing in gastric lumen without gastric serosa involvement and surrounding organ metastasis, which were treated with ESD. In the 30 cases, 2 cases of gastric perforation were observed and were treated by titanium clipping and conservative treatment. The remaining 22 cases were treated with laparoscopy or laparotomy. After 3 months, all the lesions healed without recurrence. **Conclusion** Miniprobe endoscopic ultrasonography combined with CT examination in diagnosis of large gastric SMT can obtain accurate pathological condition, which is important for selecting therapeutic regimens for large gastric SMT.

[**Key words**] miniprobe ultrasonography; tomography; X-ray computed; submucosal tumors

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胃黏膜下肿瘤(submucosal tumors,SMTs)是临床上对于胃黏膜层以下各种病变的统称,包括平滑肌瘤、间质瘤、神经源性肿瘤、脂肪瘤、纤维瘤等。普通胃镜只能观察到胃腔内胃壁肿物隆起,不能确定病变起源、深度和性质,小探头超声内镜检查可以分辨出病变位于胃壁的准确位置,为内镜微创治疗或外科手术提供参考[1-4],但是小探头超声内镜由于超声频率的限制,不能充分显示较大的黏膜下肿瘤的边界,特别是病变是否向胃腔外生长有时很难判断[5-6]。因此,对于此类病变,我们序贯采用小探头超声内镜和CT检查,以此为患者的治疗方式选择提供依据,并取得满意的疗效,现报告如下。

1 资料与方法

1.1 一般资料

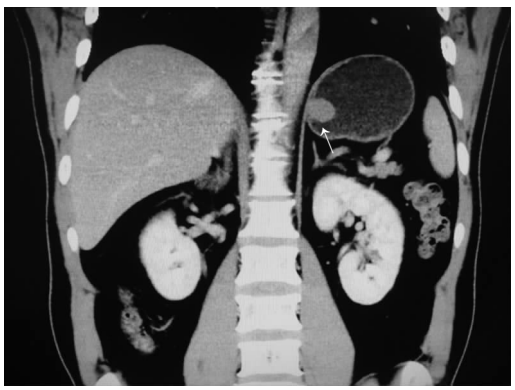
选择2009年1月至2011年6月在我院消化内镜中心通过胃镜和小探头超声内镜检出的胃黏膜下肿瘤,超声剖面直径≥20 mm,共52例住院患者纳入本研究。其中男性28例,女性24例,年龄22~72岁,中位年龄43岁。病变分布:胃底30例,胃体15例,胃窦7例,患者进行上腹部CT平扫和增强扫描,所有患者行常规术前检查,并签署知情同意书,本研究开展前经过本院伦理委员会批准。

1.2 方法

电子胃镜检查发现隆起性病变后,再行超声内镜检查。超声内镜为富士能SP-701高频超声微探头,频率15 MHz,全部病例病变超声平面直径均≥20 mm,和(或)边缘已显示不清,随后行全腹部CT平扫和增强扫描,采用GE 64排螺旋CT机,在检查前15 min常规口服1%泛影葡胺600~800 ml。采取仰卧位,注射流量为3 ml/s,注射开始后30 s行动脉期扫描,60 s后扫描为门静脉期,层厚5 mm,层间隔5 mm。扫描完成后,应用软件功能做多平面重建,以利于解剖结构的显示。通过超声内镜检察,对于来源于黏膜肌层、黏膜下层或固有肌层病变,如果CT和超声内镜均确认向腔内生长,则选择黏膜切除术(endoscopic mucosal resection, EMR)或者黏膜下剥离术(endoscopic submucosal dissection,ESD)的方法切除。即先用EMR或ESD剥除病变表面的黏膜,然后将病变进行ESD切除。操作时观察创面,如果切除过程中发现胃壁穿孔,切除病变后尽量钛夹充分夹闭穿孔,置胃管、禁食和保守治疗。术后常规送病理学检查,显微镜疑诊间质瘤的,进一步免疫组织化学检测包括CD117、CD34、SMA、S-100和Desmin等指标。CD117(+)、CD34(+)提示间质瘤,SMA(+)、S-100(+)和CD117(-)则提示平滑肌瘤,根据肿瘤大小、核分裂象计数等指标可进一步区分为良性、交界、恶性。操作时如果CT发现病变已累及浆膜或向腔外生长,和(或)周围有较粗动脉供血,和(或)有周围脏器转移,患者则行腹腔镜或开腹手术,术后半年胃镜和CT复查随访。

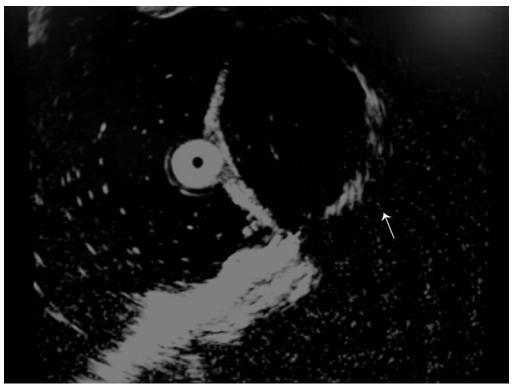
2 结果

52例病变均送病理证实。其中良性间质瘤20例,直径2.0~4.0 cm,CT显示腔内生长12例,采用内镜下手术,有2例穿孔,钛夹夹闭后,保守治疗病情缓解。8例显示向腔外生长,转外科手术治疗(图1、2)。超声内镜难以分辨肿瘤是否侵及浆膜层,需结合CT来判定。恶性间质瘤16例,直径3.0~6.0 cm,CT显示10例向腔内生长,有6例向腔外膨出,13例侵犯浆膜,其中有1例并发肝内转移。3例腔内生长未侵犯浆膜的,行内镜下ESD摘除,其余13例均采用手术治疗。平滑肌瘤5例,直径2.0~3.6 cm,CT确认4例腔内生长,行内镜下ESD摘除手术,1例向腔外膨出,采用外科腹腔镜治疗。异位胰腺6例,脂肪瘤5例,超声内镜和CT检查排除腔外生长后,内镜下ESD摘除。术后半年复查,所有病变愈合好,无复发,1例恶性间质瘤肝转移患者术后失访。



↑:瘤体,提示胃底间质瘤侵及胃浆膜层

图1 良性间质瘤术前CT表现



↑:低回声瘤体

图2 良性间质瘤术前超声内镜影像表现

3 讨论

SMTs泛指一类来自黏膜层以下的消化道隆起性病变,其生长方式主要可以分为腔内型、腔外型和混合型。判断消化道隆起性病变的性质和位置,是超声内镜检查的主要适应症之一。目前小探头超声内镜因操作简便,已在较多内镜中心引入,它是将直径<2.8 mm的超声探头通过普通内镜活检钳道孔,插入体腔,从而进行超声检查,因此对于上消化道隆起病变的起源能较易作出鉴别,同时可以清楚判定病变来源于胃壁还

是来源于邻近脏器或胃外病变压迫。但是小探头超声内镜对较大病灶的边界及回声显示较差,对于直径>20 mm的病变及其周围淋巴结转移和邻近脏器受累情况常常难以显示清楚。因此较大病变的判断尚需结合其他影像学检查。

CT检查结合后处理功能更加立体地展示出胃黏膜下病变的形态、结构、与周围组织的关系等特征[7-9]。在CT平扫后胃黏膜下肿瘤常表现为局部的圆形或类圆形软组织密度肿块影,肿瘤较大者,则多表现为不规则或分叶状肿块,边界清楚或不清。良性肿瘤多呈均匀性中度强化,恶性者多呈中度至明显不均匀强化,而本组患者运用CT还重点观察了病变生长方式,这对于内镜手术有重要参考价值。我们共发现15例向腔外生长的病变,其中1例伴肝脏的转移。上述特点和信息仅依赖小探头超声内镜很难全面确认,也会影响治疗措施的选择。通过CT检查,弥补了小探头超声内镜分辨深度的缺陷,为胃镜手术提供了直观的影像资料。

ESD的逐渐普及和内镜治疗器械的进步,为胃黏膜下肿瘤的治疗提供了有力支持[10-11]。它包括以下3个步骤:向黏膜下注射液体以托起肿瘤、预切除肿瘤表面及周围黏膜、剥离肿瘤。因此对于起源于黏膜肌层和黏膜下层的病变,ESD的安全性相对较高,且较易摘除。但对于起源于固有肌层的较大病变是否内镜手术摘除,国内有很大争议。因其并发症高,这一技术在全国范围内还未普及,国内仅少数单位通过内镜下全层切除术来治疗该类肿瘤,但风险较大[12-13]。对于起源于固有肌层的较大病变,我们认为如果术前不能判断病变是否侵及浆膜,是否向腔外生长和其血供特点,盲目行内镜手术,则增加了手术的风险,大的穿孔和出血往往难以避免,补救不及时可能会危及患者生命。对于来源固有肌层浅肌层较大病变,如果向腔内生长,未侵犯浆膜的,用ESD治疗。我们体会手术时:①器械最好用IT刀或L型刀便于分离操作;②仔细辨认黏膜下病变与周围正常肌肉之间的组织间隙,进入间隙后尽量靠近瘤体分离,避免肌层切开过深;③边操作,边电凝,如果发生大的出血,尽量止血,然后再清晰地分离病变。因此本组仅2例发生小的穿孔,经内镜下多个钛夹充分夹闭并保守治疗,无明显穿孔后感染、出血等症状发生。对于术前发现侵及浆膜,CT发现向腔外生长,周围有转移的,我们倾向采用外科手术治疗。这样才可能有效降低了内镜手术并发症发生的风险[14]。

因此,对直径>20 mm的较大胃黏膜下肿瘤进行小探头超声内镜和CT检查,可以对其病变的生长特点进行综合判断,进而为能否内镜下ESD切除或外科手术治疗供科学依据,既保证了疗效,又降低了风险,同时也减轻了患者的痛苦和经济负担,值得进一步推广。

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