

暂时性金属支架扩张术治疗贲门失弛缓症对食管动力中远期的影响

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收稿日期: 2007-04-17 修回日期: 2007-08-26

Long-term effects of achalasia on esophageal motility following temporary internal metal stent dilation

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Received: 2007-04-17 Revised: 2007-08-26

Abstract

AIM: To explore the long term effects of achalasia on esophageal motility following temporary internal metal stent dilation.

METHODS: Nineteen patients with achalasia had temporary internal metal stents (20–25 mm diameter) placed under X-ray guidance. After stent dilation over 3–7 days, the stents were removed by endoscopy. We measured lower esophageal sphincter (LES) pressure, LES relaxation rate, and 24-hours pH in the 19 patients and 12 healthy control subjects (HS).

RESULTS: LES residual pressure before stent dilation was markedly higher than at 2 weeks and 2 years after stent dilation (47.43 ± 9.84 mmHg vs 12.32 ± 5.87 mmHg, and 14.21 ± 7.34 mmHg; $P < 0.05$). LES relaxation rate was significantly different before stent dilation that at 2 weeks and 2 years after (13.33% vs 76.66% , and 73.46% , $P < 0.05$). The frequency of gastroesophageal reflux (GER) at 2 years after stent dilation was

markedly higher than before and two weeks and before stent dilation (66.12% vs 27.72% , 2.95% , $P < 0.01$); residual pressure and relax rate showed no significant difference between HS and after stent dilation of 2 weeks and 2 years.

CONCLUSION: Temporary internal metal stent dilation results in lower LES pressure and a higher rate of GER for patients with achalasia in the long term.

Key Words: Achalasia; Temporary internal metal stent; Esophageal motility

Chen NW, Zhu JS, Chen WX, Sun Q, Wang RH. Long-term effects of achalasia on esophageal motility following temporary internal metal stent dilation. *Shijie Huaren Xiaohua Zazhi* 2007; 15(25): 2723-2725

摘要

目的: 探讨暂时性金属支架治疗贲门失弛缓症对食管动力中远期的影响。

方法: 19例贲门失弛缓症患者在X线下置入国产可扩张带膜金属支架, 术后3–7 d由胃镜取出。治疗前、后2 wk及2 a测定LES静息压、松弛率、食管内24 h pH监测, 12例健康人测定下食管括约肌(LES)静息压、松弛率。

结果: 扩张后2 wk和2 a LES静息压显著低于扩张前LES静息压(12.32 ± 5.87 mmHg, 14.21 ± 7.34 mmHg vs 47.43 ± 9.84 mmHg, $P < 0.05$), 松弛率显著高于扩张前松弛率压(76.66% , 73.46% vs 13.33% , $P < 0.05$), 但他们均与正常人无显著差异。扩张后2 a GER阳性率显著高于扩张后2 wk及扩张前(66.12% vs 27.72% , 2.95% ; $P < 0.01$)。

结论: 中远期暂时性金属支架扩张术仍能显著降低贲门失弛缓症患者的LES压力, 但GER也显著增加。

关键词: 贲门失弛缓症; 暂时性支架; 食管动力

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背景资料

贲门失弛缓症近年来发病率有上升趋势, 应用暂时性金属支架治疗贲门失弛缓症, 是一种快捷的治疗方法, 但暂时性金属支架放置后会引发胃食管返流等的发生率增高, 所以暂时性金属支架扩张术对食管动力远期影响应给以全面的探讨。

应用要点

本文通过暂时性金属支架扩张治疗贲门失弛缓症,及对食管动力的影响,认为这是目前治疗贲门失弛缓症方法中安全、有效、疗效持久的方法,但随着时间的增长胃食管返流也在增加,并为今后如何根据病情采用不同直径、不同支撑力的金属内支架以及放置时间的长短,提供了一定的临床客观依据。该问题有待进一步研究和解决。

治疗贲门失弛缓症对食管动力中远期的影响. 世界华人消化杂志 2007;15(25):2723-2725

<http://www.wjgnet.com/1009-3079/15/2723.asp>

0 引言

贲门失弛缓症是常见的食管运动障碍性疾病,近年来发病率有上升趋势。目前临床常用口服钙离子拮抗剂、X线透视下球囊导管扩张术、经内镜注射肉毒杆菌毒素、Heller肌切开术等治疗方法,但疗效各有优缺点^[1-5]。本研究采用暂时性金属支架治疗贲门失弛缓症^[6-8],并通过测定暂时性金属内支架治疗贲门失弛缓症前、后2 wk及2 a的下食管括约肌(LES)压力、松弛率和食管内24 h pH监测,以探讨暂时性金属支架扩张术对食管动力远期影响。

1 材料和方法

1.1 材料 1996-08/2001-12间住院患者19例。男13例,女6例,年龄29-63(平均37.2)岁,均因吞咽困难而就诊。采用stooler吞咽困难程度分级法,其中9例患者吞咽评分为3级,6例评分为4级,4例评分为5级。全部病例均经上消化道钡剂造影、胃镜以及多功能胃肠动力测定仪检查确诊为贲门失弛缓症。健康人(HS)对照组共12例,男8例,女4例,年龄20-65(平均45.6)岁。无消化系统疾病史及胃肠道症状;无其他影响食管动力的全身性疾病;精神状态良好。支架为国产镍钛合金部分带膜支架(江苏省常州智业医疗器械有限公司)。支架长6-8 cm,直径20-25 mm,支撑力90 g/mm,记忆温度36.0℃,单喇叭口或双喇叭口,喇叭口直径23-28 mm,支架内表面被覆的是硅胶膜,目的是阻挡肉芽组织向腔内生长,膜位于支架的中段,支架口近端1-2 cm为无膜区主要是防止支架移位。测压管为PMC-4型,4通道,4个侧孔,相距5 cm,内经0.8 mm,外径3.5 mm;传感器为PCBDPT-6009型;压力换能器为Synectics PC Polyraf HR(均为CTD-Synectics公司产品)。Digitrapper MK3型24 h pH监测仪。

1.2 方法 术前常规检查出凝血时间,空腹4 h以上,在X线下置入带膜金属内支架,术后3-7 d由胃镜取出。患者在支架扩张前和扩张后2 wk及2 a测定LES静息压、松弛率及食管内24 h pH监测,检查前3 d停用影响胃肠动力药和抑酸剂,空腹6 h,测压采用液导法,食管内24 h pH监测,分析软件Windows3.02。酸反流总计分>14分和pH<4的总时间>4%者为胃食管反流(GER)阳性。

表 1 贲门失弛缓症扩张前、后及正常人LES静息压,松弛率和GER率比较

分组	n	LES静息压 (mmHg)	松弛率 (%)	GER率 (%)
扩张前	19	47.43 ± 9.84	13.33	2.95 ^c
扩张后2 wk	19	12.32 ± 5.87 ^a	76.66 ^a	27.72 ^c
扩张后2 a	19	14.21 ± 7.34 ^a	73.46 ^a	66.12
正常人	12	14.24 ± 6.16	90.00	-

^aP<0.05 vs 扩张前; ^cP<0.05 vs 扩张后2 a。

12例健康人测定LES静息压、松弛率。

统计学处理 用SPSS10.0软件中的t检验和卡方检验进行统计分析,P<0.05为差异有显著性。

2 结果

扩张后2 wk和2 a LES静息压显著低于扩张前LES静息压,松弛率显著高于扩张前松弛率(P<0.05),但他们均与正常人无显著差异。扩张后2 a GER阳性率显著高于扩张后2 wk及扩张前(表1,P<0.05)。

3 讨论

贲门失弛缓症是常见的食管运动障碍性疾病,尽管目前临床有多种治疗方法,但疗效均不够理想^[9-12]。本研究采用暂时性金属支架扩张治疗贲门失弛缓症^[13-16],并测定食管动力改变情况,以判定其远期疗效。

19例贲门失弛缓症患者在暂时性金属支架扩张治疗前、后2 wk、后2 a测定LES和松弛率。治疗后较治疗前有显著改善且2 wk后于2 a后无明显差异,提示本治疗方法有着较好的远期疗效。以往有研究也表明金属支架随着患者的体温逐渐扩张后较规则撕裂肌层^[17-18]而不同程度地破坏食管的LES结构与功能从而能较长期的改善吞咽障碍^[19-22]。

然而暂时性金属支架扩张后GER率显著高于扩张前,且随着时间的延长胃食管返流也在进一步的增加(P<0.05)。虽然暂时性金属支架置入扩张后造成LES肌层撕裂较规则,但也一定程度地破坏食管LES的结构与功能,使扩张后GER增加。尽管其反流程度较Heller肌切开术和永久性内支架要轻,但仍比正常人GER的发生率明显增高^[23-26]。评判一种治疗贲门失弛缓症方法的疗效应包括两方面:(1)是否解决吞咽障碍;(2)是否能使LES保留一定的抗反流功能,即尽可能恢复LES的生理功能。我们采用暂时性金属内支

架扩张术治疗贲门失弛缓症就是试图达到这一目的。在今后治疗中如何根据病情采用不同直径、不同支撑力的金属支架以及放置时间的长短, 以达到这一目的。

通过暂时性金属支架置扩张术治疗贲门失弛缓症的近期和远期食管动力变化的测定, 我们认为这是目前治疗贲门失弛缓症方法中安全、有效、疗效较持久的治疗方法, 但随着时间的增长胃食管返流也在增加, 该问题有待进一步研究和解决^[12,27-29]。

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名词解释

LES静息压: 食管下括约肌静息压力, 测压导管位于LES内所测到的相对于胃内压的压力(呼气末或呼吸终点)称为LES静息压力。正常人LES静息压15-30 mm Hg(1 mm Hg = 133 Pa), 如果LES压力小于6 mm Hg提示LES功能不全。

同行评价

本文应用暂时性金属支架扩张术治疗贲门失弛缓症患者, 并采用食管内测压等方法观察其对食管动力功能的中远期影响, 选题实用, 数据客观, 有重要的临床意义和借鉴价值。

编辑 程剑侠 电编 何基才