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个案与短篇

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2例婴幼儿先天性血管环的诊断和治疗

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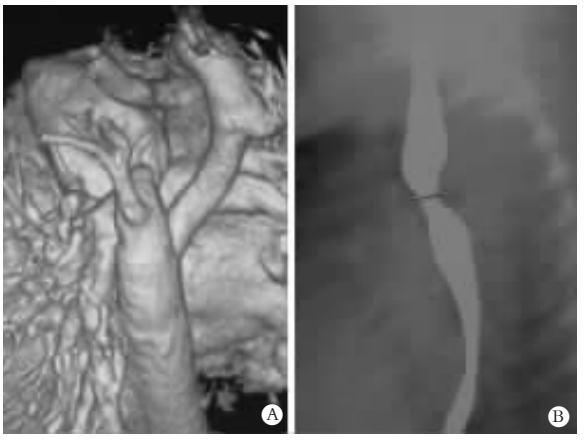
[关键词] 先天性;血管环;婴幼儿;心脏外科手术
[中图法分类号] R725.411 **[文献标志码]** B

先天性血管环从心血管角度讲通常为良性的, 但其会束紧气管和/或食管, 导致气道或食道梗阻, 需要手术解除。Gross[1]于1945年率先进行血管环手术治疗, 并提出"血管环"一词。我院2009年9 – 10月诊断和手术治疗先天性血管环患者2例, 现报告如下。

1 资料与方法

1.1 临床资料

我院2009年9 – 10月手术治疗先天性血管环患者2例, 男女各1例, 年龄分别为5个月7天和6个月28天, 体质量6 kg和5.5 kg。吞钡检查2例均有食道狭窄;术前超声心动图、多排CT检查, 诊断2例均为右位主动脉弓、左侧动脉导管和左锁骨下动脉起源于降主动脉, 右位主动脉弓从食管后绕过, 形成完整血管环(图1), 其中女性患儿合并有室间隔缺损(VSD)、房间隔缺损(ASD)。2例患儿临床表现为喘鸣, 反复呼吸道感染, 慢性咳嗽、咳痰, 其中1例偶有呛奶。



A: 血管环结构;B: 受压的食管
图1 患儿心脏大血管三维CT重建(A)及食道钡餐(B)结果

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1.2 手术方法

术前置左桡动脉测压,合并有VSD、ASD的患儿,先采取右侧卧位经左后外侧切口,纵隔胸膜完全打开后,仔细触诊,分离血管环结构,游离出左锁骨下动脉、动脉导管和降主动脉,将动脉导管离断后缝合两残端,将环离断,松解所有粘连,同时注意保护喉返神经和膈神经,最后对此区域进行触诊,感觉以前存在的张力带完全解除,将左锁骨下动脉用5-0 prolen一针带垫向后上悬吊于胸壁,进一步解除对气管食管的压迫,关胸置引流,改变体位在体外循环下修补VSD、ASD。另1例患儿在将动脉导管离断缝合两残端后充分解除压迫,术中嵌闭左锁骨下动脉,观察20 min,左侧桡动脉检测无变化,离断左锁骨下动脉缝合残端,褥氏缝闭Kommerell憩室并充分松解所有黏连。

2 结果

2例患儿均存活,术后多排CT检查受压迫的支气管腔及吞钡检查食道狭窄均明显改善,未出现呼吸道并发症,术后ICU监护时间12 d和8 d,术后呼吸机辅助168 h和50 h,左锁骨结扎者术后左桡动脉血压无变化,脉搏动良好。

3 讨论

对有反复性咳嗽、喘鸣、难治性肺部感染的患儿,应高度怀疑先天性血管环可能。大多数怀疑有先天性血管环的患儿,食道吞钡可发现食管后方有一切迹,结合超声心动图检查,可以对这一部位准确成像,作出诊断。多排CT的应用,特别是三维重建技术,能直观的显示血管环以及与食管、气管的关系,虽然多排CT不是早期先天性血管环诊断必须,但对评估气道狭窄,制定手术方案有较大优势。在完全性血管环病例中,右位主动脉弓可有不同的构型,最常见的两种是食管后左锁骨下动脉(65%)和镜像分支(35%)[2]。本组2例为右位主动脉弓伴左侧动脉导管和迷走左锁骨下动脉,由右位主动脉弓、迷走左锁骨下动脉和动脉导管围成血管环,对气管隆凸及食管造成压迫。2例均在左侧切口下判定和分离动脉环结构,离断动脉导管缝扎两残端。迷走左锁骨下动脉起源于降主动脉,有一Kommerell憩室,其扩大到一定程度会单独压迫食管和气管。文献[3]报道在迷走左锁骨下动脉起始处横断,转移至左颈总动脉作端侧吻合。本组2例中1例褥氏缝合小憩室,左锁骨下动脉悬吊;1例切断左锁骨下动脉,缝闭憩室;术后检查2例血管环松解完全,受压气管食管直径明显改善。文献[4]报道术后复发的患儿多是因为胸膜关闭后,气管食管周围瘢痕组织增生严重,造成压迫。故术中应充分松解,并完全打开胸膜,同时保护好喉返神经。本组2例术后存活,恢复好,远期疗效需进一步随访。

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