doi:10.6040/j.issn.1673-3770.0.2024.096 · 论著 ·

以搏动性耳鸣就诊的外伤性颞浅动静脉瘘 1 例并文献复习

卜苓南,李茂才,宫丽丽
聊城市人民医院 耳鼻咽喉头颈外科,山东 聊城 252000

摘要:目的 探讨外伤性颞浅动静脉瘘致搏动性耳鸣的解剖机制、诊疗方案及预后。**方法** 分析 1 例左颞部外伤术后出现左耳前包块伴搏动性耳鸣患者的临床资料,并回顾相关文献。**结果** 外伤性颞浅动静脉瘘致搏动性耳鸣少见,该病例诊断依赖于患者颞部外伤手术史、听诊局部有血管杂音及耳前多普勒超声和头颈部 CTA 检查,左颞浅动静脉结扎及局部包块切除术为有效治疗手段,与文献报道一致。**结论** 外伤性颞浅动静脉瘘致搏动性耳鸣的诊断需依靠病史、临床症状和体征,头颈部 CTA 可明确诊断,传统的包块切除及血管结扎可获得稳定持久的疗效。

关键词:搏动性耳鸣;颞浅动静脉瘘;外伤;CT 血管造影;血管结扎
中图分类号:R764.45;R654.3 **文献标志码:**A **文章编号:**1673-3770(2025)01-0101-04

引用格式:卜苓南,李茂才,宫丽丽. 以搏动性耳鸣就诊的外伤性颞浅动静脉瘘 1 例并文献复习[J]. 山东大学耳鼻喉眼学报,2025,39(1):101-104. BU Lingnan, LI Maocai, GONG Lili. Pulsatile tinnitus caused by traumatic superficial temporal arteriovenous fistula: a case report and liferature review[J]. Journal of Otolaryngology and Ophthalmology of Shandong University, 2025, 39(1):101-104.

Pulsatile tinnitus caused by traumatic superficial temporal arteriovenous fistula: a case report and liferature review

BU Lingnan, LI Maocai, GONG Lili
Department of Otorhinolaryngology & Head and Neck Surgery, Liaocheng people's Hospital, Liaocheng 252000, Shandong, China

Abstract: Objective To investigate the anatomical mechanism, imaging characteristics and surgical effect of pulsatile tinnitus caused by traumatic superficial temporal arteriovenous fistula. **Methods** To analyze the clinical data of a patient with left ear anterior mass and pulsatile tinnitus after a history of left ear trauma. The patient was confirmed as superficial temporal arteriovenous fistula by superficial B-ultrasound and head and neck CT angiography. The symptoms were improved after Surgical method of mass resection and vascular ligation. The clinical characteristics and curative effect were analyzed. **Results** The patient had a history of left ear trauma, and had subcutaneous mass with pulsatile tinnitus after injury. The physical examination found that there was local vascular murmur. After surgical method of mass resection and vascular ligation, pulsatile tinnitus disappeared. The patients were followed up for half a year after operation, and the symptoms did not recur. **Conclusion** The diagnosis of pulsatile tinnitus caused by traumatic superficial temporal arteriovenous fistula depends on clinical symptoms and signs. CTA of head and neck can make a definite diagnosis, and traditional mass resection and vascular ligation can obtain stable and lasting curative effect.

Key words: Pulsatile tinnitus; Superficial temporal arteriovenous fistula; Traumatic; Computed tomograph angiograph; Vascular ligation

颞浅动脉属于颈外动脉的终末分支,在下颌骨髁状突平面由颈外动脉发出,上行于颞下颌关节的稍后方和外耳道前方,越过颧弓根部,走形在颞骨表面,往往和同名静脉伴行,因此外伤时动静脉易同时受累,是动静脉瘘形成的解剖学基础。搏动性耳鸣属于耳部常见症状之一[1],根据病因可分为血管性及非血管性,临床上以血管性多见,动静脉瘘导致的搏动性耳鸣国内外报道较少。本文回顾性分析 1 例外伤性颞浅动静脉瘘致搏动性耳鸣患者的临床资料,并查阅国内外相关文献[2-3],探讨该病的解剖机制、诊疗方案及预后,为临床处理该类疾病提供一定的参考。

1 资料与方法

1.1 病历资料

患者男,54 岁,因"左颞部外伤术后耳前包块伴

收稿日期:2024-2-24
通信作者:李茂才。E-mail:lmc0785@163.com

搏动性耳鸣 2 年余”于 2022 年 11 月 10 日入院。患者 2 年前因左颞部玻璃划伤于当地医院行清创缝合术,创面愈合良好,后患者发现左耳前包块,伴左耳搏动性耳鸣,无局部疼痛,无口角歪斜、额纹消失、眼睑闭合不全等面瘫症状,无听力下降、耳道流液等。曾于当地医院诊断为神经性耳鸣,口服药物治疗无明显效果。因包块渐进性增大、影响外观,且长期耳鸣影响睡眠,故就诊于聊城市人民医院耳鼻咽喉头颈外科门诊,查体见左耳屏前 1 cm 处可见一陈旧性疤痕,皮下有一隆起性包块,大小约 2 cm×2 cm,按压有搏动感,听诊可闻及血管样杂音,患者自觉与脉搏一致,深压包块后耳鸣减轻。纯音测听及声导抗检查未见明显异常;左耳前多普勒超声示左耳前血管迂曲,提示血管瘤可能;头颈部 CTA 示左颈外静脉迂曲扩张,平寰枢关节处可见与左颈外动脉贯通,考虑颞浅动静脉瘘。见图 1。

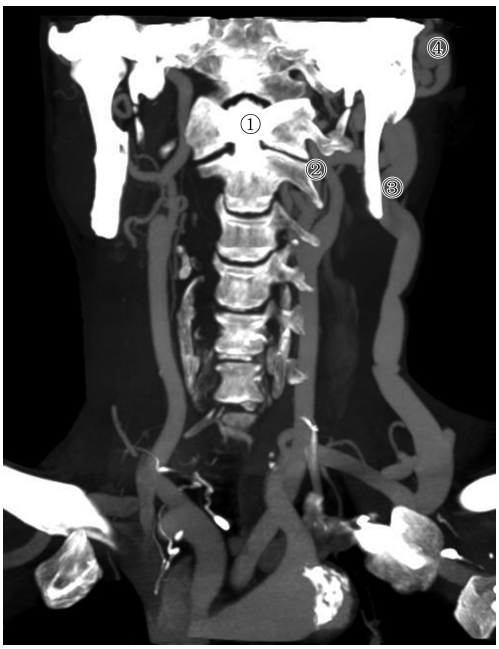

图 1　外伤性颞浅动静脉瘘头颈部 CTA
注:①枢椎;②颈外动脉;③颈静脉;④瘘口

Figure 1　Head and neck CTA of traumatic superficial temporal arteriovenous fistula
Note: ①Axis; ②External carotid artery; ③External jugular vein; ④Fistula

1.2　方法

收入院后完善术前检查,排除手术禁忌。全麻下行左颞浅动静脉结扎+包块切除术:术中分离包块表面瘢痕组织后见一直径约 2 cm 瘤体,周围血管迂曲走形,钝性分离瘤体、暴露上极,考虑瘤体来自颞浅动脉,给予 4 号线结扎颞浅动脉瘤体端及远心端;继续探查瘤体下极见另一根蒂位于腮腺浅叶后缘,来自颞浅静脉,充分暴露后予以 7 号线结扎并 8 字缝合,完整切除包块。

2　结　果

术后搏动性耳鸣完全消失,随访半年未复发。

3　讨　论

颞浅动静脉瘘是头面部少见的一种血管畸形,临床发生率在 0.5%~2.0%。颞浅动脉在头面部上行中,一部分由颞肌保护,但到达颅骨上颞线时,因位置表浅,距离侧面的颅缝较近,同时颞浅动、静脉往往平行走形,外伤时易受累及[4]。目前该病从病因上分为先天性和后天性,临床上以后天性多见,后者可进一步分为自发性、创伤后或医源性。Juan 等[5]发现自发性颞浅血管瘘可能是先天性的,尽管大多数病例在青春期之前一直没有症状。一些动静脉瘘可能本身存在,但在创伤前无症状,因创伤触发后变为功能性,分析可能和创伤后激素水平改变、血管收缩障碍以及炎症反应有关[6-7]。该患者是否存在先天性因素无法考证,外伤史明确。

搏动性耳鸣是指耳鸣节律与脉搏同步,按压颈部血管耳鸣可减轻甚至消失。搏动性耳鸣根据病因可分为血管性及非血管性搏动性耳鸣,临床上以血管性多见,目前公认的血管源性有动脉粥样硬化、动静脉畸形及瘘、耳硬化征、鼓室球瘤和颈静脉球体瘤、乙状窦憩室[1,8-9],Biegaj 等[10]发现,发现创伤性颞浅动静脉瘘致搏动性耳鸣极其罕见,如果临床中遇见外伤后出现同侧搏动性耳鸣时,要想到动静脉瘘可能。

查阅相关文献[2-3],目前有两种可能的解剖学机制来解释创伤性动静脉瘘形成原理:①潜在机制是供血动脉和引流静脉同时撕裂导致单个瘘形成。②动脉壁破裂的血管内皮细胞增生到血肿中,血肿机化后形成几个通向邻近静脉的小通道,引起局部动静脉瘘,瘘的近心端动脉进行性迂曲延长、远端静脉迂曲扩张,出现瓣膜关闭不全。该病例为玻璃穿透性损伤,它导致血管瘘很可能是由第一种机制引起的。由于颞浅动脉较相应静脉管径粗,动脉血经过瘘的短路循环,形成涡流和喷射,由于血流管径变化导致流速突然变化或者流速不均匀,随血流搏动形成杂音,杂音刺激附近的耳蜗神经和听神经,使患者出现耳鸣症状。在按压颈部血管时,由于动脉血流减少、短路循环被暂时切断,血流搏动形成的杂音消失,伴随耳鸣症状亦消失。临床上在诊断该病时需要与单纯外伤后血肿、脂肪瘤、表皮样囊肿等相鉴别[11]。

创伤性颞浅动静脉瘘导致搏动性耳鸣的诊断主

要靠典型的外伤史及详细的体格检查。最主要的临床症状有搏动性包块、搏动性耳鸣、头痛及局部疼痛等。体格检查:局部血管扩张和迂曲,听诊包块时有杂音,触诊时有搏动感,呈滚珠样,而非膨胀性[4](该患者由于手术进行的过于仓促,未及时留取患者术前病变图片及术中瘘口显示,在此进行解释说明)临床上血管畸形可根据其成分和特性分为高流量和低流量。对于颞浅动静脉瘘,由于缺乏毛细血管床,供血动脉和引流静脉之间存在直接关系,往往会导致高流量病变[12]。这也解释了该患者出现震颤和杂音的机制。该病诊断除了基于外伤史和详细的体格检查外,临床上血管造影仍是诊断该病的黄金标准[4]。它不仅可见明确供血动脉及引流静脉,同时可以明确瘘口部位。也可通过多普勒超声及磁共振诊断,因两种方式均属于非侵入性诊断方法,由于创伤性动静脉瘘产生是供血动脉与回流静脉之间形成贯通,中间缺乏毛细血管床,导致动静脉血混合,多普勒超声下显示为五彩相间的混合信号,便于区分包块供血情况。同时根据血流方向及速度可辨认供血血管以及瘘口位置。磁共振在诊断该病时可了解病变范围是否涉及骨质,在 T1 和 T2 加权磁共振图像上,病变表现为扩张的、错综复杂的血管结构,可显示血流中断迹象[13]。

创伤性颞浅动静脉瘘导致搏动性耳鸣治疗目的主要是改善美容、缓解症状和预防出血[8]。针对该病治疗,目前尚无统一定论。手术切除并结扎供血血管、血管内栓塞或两者联合等方法均可用于治疗这些病例[14-15]。对于瘘口清晰且单发、病灶直径小于 4 cm,同时供血动脉及引流静脉较少时可以首选单纯血管内栓塞。该方法优点是创伤小、恢复快、术中失血量少,但因栓塞材料原因,术后存在局部炎性反应、瘘口部位疼痛、皮肤压痛、充血以及永久性斑片状脱发、术后血管再通导致复发率高等[16-17]。对于病灶直径较大(≥4 cm)、供血动脉和引流静脉复杂患者,为彻底治疗并减少并发症和复发风险,首选手术切除[18]。手术切除搏动性包块和供血血管结扎仍是标准手术方式[19]。手术切除的优点是费用低、并发症率低、复发率低。Visser 等[20]研究显示动静脉瘘手术切除总体复发率仅为 8.7%,其中最大的危险因素是切除不完全。总之,对于动静脉瘘安全有效的治疗方式首选手术,术中仔细识别解剖,阻断供血动脉,彻底切除畸形血管团,消除动静脉瘘道才是成功的关键。本例患者经手术切除包块及供血血管结扎后,耳鸣症状即刻消失,随访半年,耳鸣未复发,说明此种术式疗效肯定。

创伤性颞浅动静脉瘘所致搏动性耳鸣在临床少见,其诊断要点如下:①患者有明确的颞部外伤史,并且耳鸣在伤后出现;②耳鸣与脉搏一致,且主客观均能听及;③皮下包块呈搏动感,呈滚珠样,非膨胀性,听诊时可闻及血管杂音。目前治疗该病方法多样,术前详细体格检查及血管造影是诊断该病关键,对于不同病灶大小、供血血管是否单一可选择手术切除或血管内栓塞,术中处理病变时仔细识别解剖、彻底切除病灶并结扎供血动脉和引流静脉是减少复发的关键。

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(编辑:李纬)

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(编辑:李纬)