

经皮置管引流术在重症急性胰腺炎治疗中的应用和问题

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Percutaneous catheter drainage in severe acute pancreatitis: Application and problems

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Abstract

Severe acute pancreatitis (SAP) is an acute abdominal disease which has a number of complications and a high mortality rate. The prognosis had improved much since the use of multidisciplinary comprehensive therapy and minimally invasive treatment in this disease. Percutaneous catheter drainage (PCD) can be

used as a step-up minimally invasive treatment for SAP, and as a bridge between internal conservative therapy and open surgery for removal of necrotic tissue. PCD has a therapeutic effect on the local complications of SAP, such as abdominal free effusion, retroperitoneal necrosis infection and pancreatic pseudocyst, and can help to choose the operation timing when the necrotic tissue encapsulation is confirmed in patients with SAP. Clinical therapy should be selected based on the lesion location, quantity and consistency of effusion. When the effusion is located in shallow location, PCD should be guided by ultrasound; if the effusion is located in location deep, CT guidance should be adopted. After PCD is finished, the catheter should be cared carefully by keeping the drainage tube patent, rinsing the tube and adjusting its position in time. All of these are the necessary measures to maintain the PCD effectively. When the drainage fluid is less than 10 mL/d and imaging shows that the lesions disappear, it is the best time to remove the tube.

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Key Words: Severe acute pancreatitis; Percutaneous catheter drainage; Therapy

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摘要

急性重症胰腺炎(severe acute pancreatitis,

■背景资料

急性重症胰腺炎(severe acute pancreatitis, SAP)是外科急腹症中较难处理的疾病之一,目前有外科开腹手术、微创外科治疗和支持治疗三种方法,目前采用的微创升阶梯治疗方案是三种方式的综合应用。

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■ 研发前沿

经皮置管引流(percutaneous catheter drainage, PCD)治疗的时机与作用是SAP治疗的热点; 如何应用微创治疗是SAP的难点; 外科开腹治疗和微创治疗的疗效缺乏前瞻性随机对照研究。

SAP)是并发症多, 病情变化复杂, 死亡率高的急腹症。自采用多学科综合治疗与微创化治疗后, 预后大为改观。经皮置管引流(percutaneous catheter drainage, PCD)可以作为一种微创升阶梯治疗的确切治疗SAP的手段, 亦可作为内科保守与开腹坏死组织清除术治疗之间的转化桥梁。对腹腔游离积液、后腹膜坏死感染及胰腺假性囊肿等SAP各种局部并发症均有治疗作用, 可使SAP患者延迟至坏死组织包裹明确后再进行确定性手术。临床应根据病灶位置、数量、积液的黏稠度采用不同口径、不同途径的治疗。浅部可采用超声引导; 深部应采用CT引导。置管后应加强护理, 保持引流管的通畅, 及时冲洗, 及时调整引流管位置, 是维持经皮置管引流有效的必要措施。当引流液逐渐少于10 mL/d, 影像学证实病灶已消失时, 是拔出引流管的最佳时机。

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关键词: 重症胰腺炎; 经皮置管引流; 治疗

核心提示: 经皮置管引流(percutaneous catheter drainage)是治疗急性重症胰腺炎(severe acute pancreatitis, SAP)最重要的微创治疗方法, 只要操作精确, 术后保持引流通畅, 必要时调整引流管的位置及数量、扩大引流管孔径, 对SAP的局部并发症具有较好的治疗效果, 也可结合内镜引流联合应用, 或作为微创升阶梯治疗的手段的组成部分加以广泛应用。

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0 引言

急性胰腺炎是一种常见的急腹症, 起病急, 进展快。因临床表现复杂多变, 严重度差异悬殊, 预后有很大的不同。临床上约80%左右的患者是轻型急性胰腺炎, 经保守治疗多能自愈; 约20%的患者发展成重症急性胰腺炎(severe acute pancreatitis, SAP), 治疗复杂, 预后不佳^[1-3]; 自从采用多学科综合治疗与微创化治疗以来, 预后大为改观^[4]。

经皮置管引流(percutaneous catheter drainage, PCD)是临床常用治疗SAP的一种微创手段, 首先由Gerzof等^[5]首先应用于腹腔及胸腔

脓肿的穿刺引流, 逐步扩展到SAP的各种并发症的治疗^[6-11]。PCD可以作为延缓SAP开腹手术的一种辅助方法, 亦可作为一种确定的治疗SAP的方法单独应用或联合其他微创技术应用^[12-14], 近几年经PCD途径在影像引导下进行坏死组织清除术(percutaneous necrosectomy, PN)也获得广泛应用^[15-17], 但对其适应证、治疗时机与效果目前评价不一, 有必要做深入探讨。

1 治疗途径

PCD是伴随断层影像技术如超声及计算机断层扫描(computed tomography, CT)的发展由介入放射学医师开展的一种微创技术, 目前主张深部穿刺采用CT定位, 浅部穿刺在B超引导下进行。根据SAP病理学胰腺坏死及积液多位于以下部位: 游离大腹腔、小网膜囊及腹膜后间隙^[18]。根据液体积聚的部位选择不同的穿刺途径。腹腔游离积液多位于盆腔, 随着病期的延长, 有时可形成膈下脓肿、盆腔脓肿; 盆腔积液和脓肿形成, 多采用下腹部经腹腔置管引流, 很少采用经直肠或经阴道引流; 膈下脓肿多采用经左下胸腔引流左膈下脓肿, 但有导致胸腹腔感染的可能, 应尽力保证引流管侧孔完全位于脓腔内, 减少引流时间, 脓肿或积液消失后尽早拔除^[19]。小网膜囊积液或脓肿, 可选择经胃大弯和结肠的间隙穿刺小网膜囊或经肝左外叶穿刺小网膜囊(胰腺颈部和体部的前方)。腹膜后积液或脓肿多选择经侧腹壁, 如经左侧腹膜后脾肾间隙穿刺胰腺尾部及左侧结肠旁沟, 经右侧腹部或腹膜后穿刺胰头下方及右侧结肠旁沟, 可引流肝肾间隙和十二指肠和结肠外侧的液体。因后腹膜有时积液分布广泛, 需采用多根多处引流。Lee等^[20]总结SAP常用的PCD引流途径, 多达10种; 也有报告特殊部位引流途径^[21], 但必须尽力避免引流途径有脏器和重要血管。

2 适应证

PCD是一种有创侵袭性操作, 且往往需要反复多次才能获得满意的引流效果, 常会导致SAP的感染发生率增加, 对其适应证的争论一直是PCD治疗SAP的热点问题^[22,23]。国内专家认为通过PCD来有效清除坏死组织通常需要进行3-5次操作, 所致的并发症发生率及病死率都较高; 如果SAP的病灶区域没有感染的证据则不主张进行PCD治疗, 待其自行吸收^[24]; 曹均强等^[25]认为应根据患者实际情况及行PCD后能

否有效缓解或解决当前患者所面临的急需处理的问题,来决定是否行PCD治疗及其处理时机。

综合国内外应用PCD治疗SAP的经验,对于SAP患者出现以下情况时,可考虑应用PCD: (1)对于感染性或可能感染的液体积聚;积聚的液体引起明显的疼痛症状或出现梗阻的症状和体征时;在合适的时机进行PCD去除胰周急性积聚的液体,能有效减少有毒物质和炎症介质的释放及吸收,可能会减少器官衰竭的发生;尤其当发生全身炎症反应综合征后,当腹膜后大量积液引起胃肠道梗阻无法行肠内营养支持时应积极进行PCD治疗^[26-28]。Zerem等^[29]的一项研究结果证实:尽管PCD引流管感染率为55%,然而对于胰周液体积聚>100 mL的病例,持续的PCD引流仍然比保守治疗更加有效; (2)对于胰腺坏死病灶,出现以下表现时,应进行PCD治疗:坏死病变局限在胰周及小网膜囊;坏死组织液化充分或合并有感染的腹膜后脓肿;腹膜后的单腔坏死且范围不大;术后局限的残余脓肿^[26-28]; (3)当急性胰腺炎合并有腹内高压时,早期行PCD来减低腹腔内压力是一种有效治疗措施^[30]; (4)对于急性胰腺炎合并的胰腺假性囊肿,目前多径内镜引流,当有经济困难或者不宜行手术治疗的危重患者,PCD可以作为其首选治疗方式^[31-33]。

作者认为相对于开腹手术,PCD的并发症可以被患者及其家属接受,主张只要局部积液或脓肿>100 mL以上就有放置引流的适应证。作者认为应从PCD对SAP的治疗的局部效果和全身效益两方面综合考虑其适应证。当内科保守治疗效果不佳时应首先考虑行PCD治疗;当有开腹手术的指征时,应先采用PCD试验治疗,如有效,则可避免风险大的手术治疗。

3 优点

虽然PCD是一种有创治疗,但其不仅可避免外科开腹手术所带来的巨大创伤,而且在大多数患者中其引流效果可接近或达到外科手术灌洗引流。Babu等^[34]报告通过PCD治疗,62%的患者可获得临床症状的缓解,48%的患者可避免外科手术,尤其在全身情况不稳定时。PCD能减压排脓,能有效减少腹腔内炎症介质及胰酶等有害物质的吸收;减轻全身炎症反应综合征对胰腺及其周围和远隔器官的损伤,降低MODS的发生率^[35];有效阻止局部病变的发展。

相对于外科手术,PCD具有以下优点^[36-38]: (1)能避免或减少手术时对临近脏器的损伤; (2)不需要全身麻醉; (3)患者不适感较小; (4)因患者活动较方便,可通过影像学检查随时监测引流效果; (5)影像学监控下可达到精细的穿刺操作; (6)超声引导的PCD可在床旁进行。

临床证实对坏死组织清除手术后形成的脓肿,因坏死组织少,引流效果好;对远离胰腺的脓肿和单腔且没有明显的坏死组织的脓肿,坏死组织液化较充分的脓肿,治疗效果尤其好。Endlicher等^[39]报告9例用PCD治疗坏死性胰腺炎的远期效果,发现PCD与外科手术相比,在胰腺内外分泌功能、胰腺形态及生存质量方面均具有较大优势,但对胰头部坏死区域、扩展至系膜根部的坏死或全胰坏死治疗效果欠佳。van Baal等^[40]在2011年总结11个治疗单位共计384例SAP的治疗效果发现:70.6%的感染性坏死使用PCD治疗,67.2%的患者发生器官衰竭,55.7%的患者不需其他外科清创手术。

虽然PCD具有许多优点,但不是每一例SAP患者都能保证PCD取得预期的疗效^[41];根据国内外文献^[42-45]和作者多年治疗SAP的经验,认为PCD成功的关键在于: (1)根据超声和CT确定积聚液体或坏死感染组织的部位和数量; (2)根据病灶部位和个体特点,选择安全的穿刺途径; (3)根据病灶数量,选择适当的引流管数量;为保证引流效果,引流管直径应>12 F; (4)适当的引流时间;当24 h引流量<10 mL,且影像学检查提示液性暗区消失或引流管无效时则可拔出引流管; (5)精确的置管操作:最好在有穿刺经验的影像科医生和外科医生共同指导下完成穿刺操作; (6)精细的术后观察和处理;当坏死组织黏稠,阻塞引流管导致引流不畅时应适当采取生理盐水反复冲洗,若加压冲洗仍然无效,就需在B超或CT引导下重新调整导管位置或重新置管,以保证获得满意的引流效果。无论腹腔引流或腹膜后引流,必要时均应采取充分的反复多次地冲洗才能保证引流效果。

4 展望

目前SAP的治疗多采取“升阶梯治疗”原则^[34,46-48]。升阶梯治疗方案指对于SAP患者,采取“循序渐进,创伤递增”的治疗模式;先采取内科保守治疗,有PCD指证时,即行PCD,需要外科处

■ 相关报道

van Sonnenberg等精确阐述PCD的适应证、操作规范及术后护理,大多数原则在当前仍普遍使用及遵循。van Santvoort比较SAP外科治疗和微创升阶梯治疗效果,是推广微创升阶梯治疗方案的基础,是进行进一步研究的基础。

■ 创新盘点

本文系统总结PCD的引流途径、适应证及术后护理要点, 讨论PCD的优点, 对指导PCD治疗有很大帮助。

理时再进行外科干预。临床上应尽力避免一味地推迟手术的做法, 通常在每次PCD操作后3 d进行疗效评估, 如果行PCD治疗后出现以下症状, 需尽早行外科干预^[26,49]: (1)患者脓毒症状无缓解; (2)出现新发病灶、新近出现器官功能不全或持续性器官功能不全; (3)患者病情加重且胰腺及胰周坏死感染病灶并未明显缩小或病灶逐渐增大; (4)经过多次PCD联合加压冲洗仍然引流不畅及出现需外科干预的并发症。进行外科干预应遵循微创原则, 尽量避免开腹手术, 采取微创清创技术^[21]。

5 结论

经临床医师的多年努力, SAP的治疗效果大为改观, 但仍有许多困难问题需要解决, 综合循证医学、转化医学及互补医学的相关进展, SAP的明天一定会更加光明, 治疗效果一定有所提高。

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同行评价

SAP的经皮穿刺引流, 即经皮引流、经皮置管引流或经皮坏死组织清除术, 属于微创治疗, 是当前SAP治疗的趋势, 也是SAP治疗的进步。因此, 本文具有先进性和临床实际意义。

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•消息•

《世界华人消化杂志》参考文献要求

本刊讯 本刊采用“顺序编码制”的著录方法,即以文中出现顺序用阿拉伯数字编号排序.提倡对国内同行近年已发表的相关研究论文给予充分的反映,并在文内引用处右上角加方括号注明角码.文中如列作者姓名,则需在“Pang等”的右上角注角码号;若正文中仅引用某文献中的论述,则在该论述的句末右上角注角码号.如马连生^[1]报告……,研究^[2-5]认为……;PCR方法敏感性高^[6-7].文献序号作正文叙述时,用与正文同号的数字并排,如本实验方法见文献[8].所引参考文献必须以近2-3年SCIE, PubMed,《中国科技论文统计源期刊》和《中文核心期刊要目总览》收录的学术类期刊为准,通常应只引用与其观点或数据密切相关的国内外期刊中的最新文献,包括世界华人消化杂志(<http://www.wjgnet.com/1009-3079/index.jsp>)和World Journal of Gastroenterology(<http://www.wjgnet.com/1007-9327/index.jsp>).期刊:序号,作者(列出全体作者).文题,刊名,年,卷,起页-止页, PMID编号;书籍:序号,作者(列出全部),书名,卷次,版次,出版地,出版社,年,起页-止页.