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· 防治实践 ·

口腔癌颈淋巴清扫术后并发乳糜胸3例及文献复习

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【摘要】 目的 探讨口腔癌颈淋巴清扫术后并发乳糜胸的临床表现、诊断及治疗策略。方法 分析2020年1月至2021年5月于中南大学湘雅医院口腔医学中心行口腔癌颈淋巴清扫术后并发乳糜胸的3例患者的临床资料,并通过复习文献,总结该并发疾病的危险因素、临床表现、诊断方法、治疗策略及预后。结果 3例患者均为男性口腔癌患者,年龄42~63岁,临床表现为颈淋巴清扫术后2~5 d出现进行性呼吸困难,胸部X线片、B超和(或)CT显示双侧胸腔积液,胸腔穿刺液送检乳糜试验阳性后确诊。其中左侧乳糜胸1例(左侧颈淋巴清扫),双侧乳糜胸2例(分别为左侧颈淋巴清扫和双侧颈淋巴清扫)。3例患者均在术中对症导管进行过缝扎处理,2例术后还伴有严重的颈部乳糜漏,局部加压效果不佳,行再次手术结扎胸导管。3例患者的乳糜胸均采用营养支持、机械辅助通气、胸腔穿刺引流等保守治疗后,乳糜量逐渐减少,7~15 d后拔除胸部引流管,顺利出院。文献复习结果表明,口腔癌颈淋巴清扫术后患者出现进行性呼吸困难时,临床医师应对患者进行胸片、超声影像、CT及乳糜试验等辅助检查手段,当明确诊断为乳糜胸后,可选用营养支持、生长抑素、机械性辅助通气、胸腔穿刺引流等保守治疗,必要时进行开胸结扎胸导管手术治疗。结论 乳糜胸是口腔癌颈淋巴清扫术后较为少见的并发症,以双侧胸腔同时发生为主,亦可只发生于颈淋巴清扫术侧胸腔,左侧颈淋巴清扫是并发乳糜胸的危险因素。临床表现多为颈淋巴清扫术后进行性呼吸困难,详细的体查、胸部X线片、B超和(或)CT可发现胸腔积液,穿刺抽出乳白色或淡黄色乳糜样液体且乳糜实验阳性后可确诊。采用胸腔穿刺引流,呼吸支持等保守治疗多可获得痊愈。

【关键词】 颈淋巴清扫; 胸导管; 乳糜胸; 乳糜瘘; 口腔癌; 并发症; 保守治疗; 胸腔穿刺引流

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Chylothorax following neck dissection for oral cancer: a report of 3 cases and literatures review MA Yu-jie^{1,2,3}, SONG Saiwen^{1,2,3}, ZHANG Xinyue^{1,2,3}, CAI Yijing^{1,2,3}, LIANG Ye^{1,2,3}, CHEN Jie^{1,2,3}, YUAN Yongxiang^{1,2,3}, JIANG Canhua^{1,2,3}. 1. Department of Oral and Maxillofacial Surgery, Center of Stomatology, Xiangya Hospital, Center South University, Changsha 410078, China; 2. Research Center of Oral and Maxillofacial Tumor, Xiangya Hospital, Center South University, Changsha 410078, China; 3. Institute of Oral Cancer and Precancerous Lesions, Central South University, Changsha 410078, China

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【Abstract】 Objective To investigate the clinical manifestations, diagnostics, and treatment of chylothorax following neck dissection for oral cancer. **Methods** The clinical data of 3 patients with chylothorax after neck dissection for oral

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cancer from January 2020 to May 2021 in the Stomatological Center of Xiangya Hospital, Central South University, were retrospectively analyzed in detail, and the relevant literature was reviewed. The risk factors, clinical manifestations, diagnostics, treatment, and prognosis of chylothorax were summarized. **Results** The 3 patients were all male patients with oral cancer aged 42-63 years. Their clinical manifestations were progressive dyspnea 2-5 days after cervical lymphadenectomy. Chest X-ray, B-ultrasound, and/or CT showed unilateral or bilateral pleural effusion, and the diagnosis was confirmed after a positive chylous test of pleural puncture fluid. There was 1 case with left chylothorax (1 case after left neck dissection) and 2 cases with bilateral chylothorax (1 case after left neck dissection, 1 case after bilateral neck dissection). Severe neck chylous leakage occurred in 2 patients; local compression did not work, and the thoracic ducts were ligated. All patients were treated with nutritional support, assisted mechanical ventilation, tube thoracostomy drainage, and other conservative treatments. The chylothorax volume of each patient was gradually reduced, and the chest drainage tube was removed 7 to 15 days later. All patients recovered successfully. The literature review results showed that when patients with oral cancer after neck dissection experienced progressive dyspnea, related auxiliary examination methods such as chest X-ray, B-ultrasound, CT, and chyle tests should be used by clinicians. When a patient is diagnosed with chylothorax, they should be treated with nutritional support, mechanical ventilation, somatostatin, thoracic puncture drainage, other conservative treatments, and even thoracotomy and ligation of the thoracic duct surgery when necessary. **Conclusion** Chylothorax is a relatively rare complication after neck dissection for oral cancer. It mainly occurs bilaterally or only in the ipsilateral pleural cavity on the surgical side of neck dissection. Left neck dissection is a risk factor. The clinical manifestations are mostly progressive dyspnea after neck dissection. Detailed physical examination, chest X-ray, B ultrasound, and/or CT could detect pleural effusion, and chylothorax could be diagnosed when milky white or pale yellow chylous liquid is aspirated and the chylous test is positive. Most patients can be cured with tube thoracostomy drainage, respiratory support, and other conservative treatments.

【Key words】 neck dissection; thoracic duct; chylothorax; chylous fistula; oral cancer; complication; conservative therapy; tube thoracostomy drainage

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乳糜胸(chylothorax)是指因各种先天、创伤或梗阻原因造成胸导管或其分支破裂,使乳糜液溢入胸膜腔^[1],约占所有胸腔积液的2%^[2]。口腔癌颈淋巴清扫尤其是根治性颈淋巴清扫时,胸导管(左侧)或淋巴导管(右侧)如受到损伤,会引起淋巴液外溢,临床上常予以缝扎,但这种处理方式会使胸导管发生梗阻,从而可能诱发乳糜胸^[3],临床上颈淋巴清扫术后乳糜胸多见于甲状腺癌^[4]。口腔癌颈淋巴清扫术后发生乳糜胸的报道较少,临床医师对其诊断与治疗缺乏经验。本文通过分析近期经治的3例口腔癌颈淋巴清扫术后并发乳糜胸患者的临床资料,并复习文献,总结该并发疾病的危险因素、临床表现、诊断方法、治疗策略及预后。

1 病例资料

选取2020年1月至2021年5月,中南大学湘雅医院口腔医学中心行颈淋巴结清扫术的856例口

腔癌患者中的3例术后并发乳糜胸患者,均为男性,年龄42~63岁,分别因左舌癌、左颊癌及口底癌行单侧或双侧颈淋巴结清扫。术后2~5 d出现进行性呼吸困难症状,不伴有发热、咳嗽。体查肺下部呼吸音减弱,叩诊呈实音。胸部X线片、B超和(或)CT显示单侧或双侧胸腔积液。胸腔穿刺抽出外观呈牛奶样不凝固的液体,乳糜实验呈阳性后确诊。

2 结果

2.1 颈淋巴清扫术侧、手术方式与并发乳糜胸

3例患者中左侧乳糜胸1例(左侧颈淋巴清扫),双侧乳糜胸2例(分别为左侧颈淋巴清扫和双侧颈淋巴清扫)。2例只实施了左侧颈淋巴清扫的患者中,1例发生左侧乳糜胸,1例发生双侧乳糜胸;另外1例双侧颈淋巴清扫患者并发了双侧乳糜胸。3例患者的颈淋巴清扫术均为涉及到V区的全颈淋巴结清扫。1例患者术中发现颈部胸导管

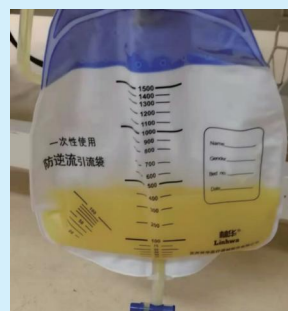
损伤后进行缝扎处理,另外2例尽管在术中未发现颈部胸导管损伤,但也进行了预防性缝扎。

2.2 治疗及预后

3例患者中2例同时伴有较为严重的颈部乳糜瘘,局部加压效果不佳再次手术结扎胸导管。确诊乳糜胸后,所有患者均采用胸腔穿刺引流、呼吸机辅助呼吸、营养支持、生长抑素抑制乳糜液产生等治疗后呼吸功能改善,乳糜量逐渐减少,7~15 d拔除胸部引流管,顺利痊愈出院。

2.3 口腔癌颈淋巴清扫术后并发乳糜胸典型病例

病例1,男性,63岁,因左侧口底癌局部扩大切除术后双侧颈部淋巴结转移入院。全麻下行双侧全颈淋巴结清扫术。术中见左侧胸导管破裂,淋巴液外溢,予以缝扎处理,右侧淋巴导管未显露。术后第2天出现左胸部隐痛和呼吸困难,进行性加重。体查双侧肺下部呼吸音减弱,叩诊呈实音。床旁胸部正位片示左侧气胸可能,胸部CT示双侧胸腔积液并肺组织膨胀不全。术后第3天予以双侧胸腔闭式引流,24 h后左右侧胸腔分别引流出淡黄色乳糜样液体约1 000 mL、450 mL,乳糜实验阳性(图1)。根据患者病史、影像学及实验室检查诊

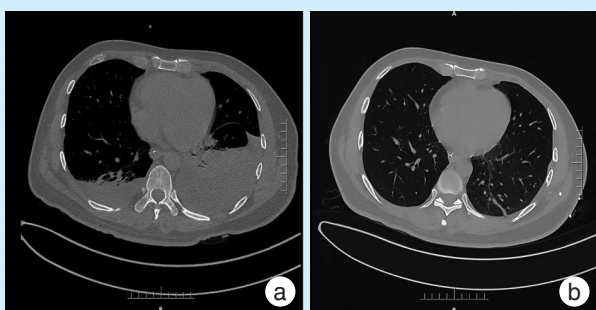


The thoracic drainage fluid was light yellow chylous fluid, and the right thoracic drainage fluid was about 450 mL

Figure 1 Right thoracic drainage fluid for 24 hours of patients with chylothorax following neck dissection for oral cancer

图1 口腔癌颈淋巴清扫术后并发乳糜胸典型病例右侧胸腔24 h引流液

断为双侧乳糜胸。予以呼吸机辅助呼吸,低盐、高蛋白、高糖、低脂饮食,生长抑素抑制乳糜液产生等治疗措施后呼吸功能改善,引流量逐渐减少。术后第15天胸部CT示双侧胸腔积液基本吸收,肺组织复张(图2),拔除双侧胸部引流管痊愈出院。



a: two days after neck dissection, bilateral pleural effusion (especially the left side) and compressed atelectasis of the left lower lobe; b: bilateral thoracic closed drainage was performed three days after neck dissection. 15 days after neck dissection, bilateral pleural effusion was basically absorbed, and lung tissue was re-expanded

Figure 2 Chest CT images of patients with chylothorax following neck dissection for oral cancer

图2 口腔癌颈淋巴清扫术后并发乳糜胸典型病例胸腔CT影像

3 讨论

3.1 颈淋巴清扫术后并发乳糜胸的发生机制

胸导管起自第1腰椎前方、降主动脉右侧的乳糜池,由左、右腰干和肠干汇合而成,向上经主动脉裂孔进入胸腔后沿后纵膈右侧走行于主动脉和奇静脉之间,然后于第5~7胸椎水平斜向左侧,进入上纵膈走行于食管左缘,最后在锁骨上3~5 cm处,呈弓形向前经左锁骨下动脉、颈总动脉和膈神经的前方,汇入左颈内静脉和左锁骨下静脉交界处的静脉角^[5]。食物中脂肪经肠道消化成长链三脂酰甘油后形成乳糜,然后经肠乳糜管运送至乳糜池中,再经胸导管进入血液^[6]。因此,在行经胸

腔的过程中胸导管或其分支如发生破裂,就会使乳糜液溢入胸膜腔形成乳糜胸。

引起胸导管破裂的原因很多,大致可分为两类:①直接损伤,如肿瘤或炎症的侵袭、外伤、手术等^[7];②间接损伤,也可称之为压力性损伤,如放疗后胸导管管腔闭塞^[8]、剧烈咳嗽^[9]、打喷嚏或呕吐等,导致胸导管内压力增高从而出现破裂。颈淋巴清扫尤其是清扫锁骨上区的颈V平面时,有可能损伤行经此处的胸导管及其分支,术中见清亮的淋巴液外溢^[10]。为防止术后发生颈部乳糜瘘,多数外科医师会在此处对胸导管进行缝扎。这种处理方式尽管减少了颈部乳糜瘘的发生几率,但

无疑会使乳糜液的回流出现障碍,导致胸导管内压力增高并可能发生破裂。既往颈淋巴清扫术后乳糜胸的病例报道多见于甲状腺癌,但近年来口腔癌颈淋巴清扫术后发生乳糜胸的报道有增加的趋势,本院2020年1月以后完成的856例颈淋巴清扫中有3例术后发生乳糜胸,发生率约0.35%,主要原因是随着外科技术的进步以及口腔癌非常规淋巴结转移现象的发现,外科医师较以往更为追求清扫术的彻底性。根治性颈淋巴清扫常规包括在内颈内静脉与锁骨下静脉交界处的脂肪结缔组织,术中对胸导管的缝扎处理也会相应增加^[11]。本研究中,3例口腔癌颈淋巴清扫术后并发乳糜胸患者,术中发生颈部胸导管损伤后进行了缝扎处理。此外,患者在发生乳糜胸的同时还并发了颈部乳糜瘘,这可能是颈淋巴清扫术后发生乳糜胸的另一种可能机制,即颈部乳糜液从颈根部渗入纵隔,在流体压力的作用下进入胸膜腔^[12]。

3.2 颈淋巴清扫术后并发乳糜胸的临床表现

本研究中,所有并发乳糜胸的患者均表现为颈淋巴清扫术后出现进行性呼吸困难及血氧饱和度的下降,但发生症状的时间与颈淋巴清扫术之间存在2~5 d的间隔期,表明胸导管的破裂并不会立即发生乳糜胸,而是存在一定的潜伏期。其主要原因是胸导管破裂后,外溢的乳糜最初积聚于后纵隔,形成乳糜瘤,然后后纵隔的胸膜发生破裂,乳糜进入胸膜腔才引发病状,临床表现的轻重则取决于胸腔内乳糜液形成的快慢与量的多少。临床体征和影像学检查所见与其他原因引起的胸腔积液者相似。由于乳糜液中的电解质成分与血浆相似,对胸膜刺激很小,仅少数患者伴有胸部隐痛。

值得注意的是,本研究3例患者中,3例与左侧颈淋巴清扫相关,2例只实施了左侧颈淋巴清扫(均为双侧乳糜胸),1例实施了双侧颈淋巴结清扫。以上结果提示左侧颈淋巴清扫是可能与发生乳糜胸相关,其原因与胸导管在胸腔内的走行特点密切相关,由于胸导管向上进入胸腔后首先沿后纵隔右侧走行于主动脉和奇静脉之间,然后于第5~7胸椎水平斜向左侧进入上纵隔走行于食管左缘,因此,根据其发生破裂的部位,既可以单独发生左侧或右侧乳糜胸,也可以发生双侧乳糜胸^[2]。但本研究中,未见右侧颈淋巴清扫后单独发生右侧乳糜胸的病例,其发生率低于左侧颈淋巴清扫,其可能的解剖学机制是右侧头颈部、右上肢

及右上纵隔的淋巴液经支气管纵隔干回流到右淋巴导管,而该淋巴导管很细很短,淋巴引流量少,即便损伤,一般也不会引起胸导管内压力的骤然增高^[5]。

3.3 颈淋巴清扫术后并发乳糜胸的诊断与鉴别诊断

口腔癌颈淋巴清扫术后发生进行性呼吸困难并出现相应临床表现及体征者,应考虑到并发乳糜胸的可能,主要的诊断依据包括:①胸部X线片、CT或超声检查可见胸腔积液^[13],但值得注意的是,口腔癌手术后特别是施行游离皮瓣修复重建的患者,需要卧床制动,普通的床旁胸片检查难以发现胸腔积液,因此推荐首选胸部CT或超声检查;②胸腔穿刺可抽出外观呈牛奶样,无味,不凝固的乳糜样液体^[14];③胸腔穿刺液乳糜实验呈阳性^[15]。

鉴别诊断包括:①气胸:口腔癌手术时间长,机械性通气导致的气胸较为常见,体查呼吸音减弱,叩诊呈鼓音,胸部X线片或CT可见肺被压缩,胸腔穿刺可抽出气体^[16];②感染性胸腔积液:长期吸烟及肺功能差的患者术后容易发生坠积性肺炎并可导致胸腔积液,多伴有低热、咳嗽,胸腔穿刺液为炎性甚至脓性液体^[17]。

3.4 颈淋巴清扫术后乳糜胸的治疗

本研究中的3例患者的乳糜胸均采用保守治疗,呼吸功能改善,乳糜量逐渐减少,7~15 d顺利拔除胸部引流管。主要治疗措施包括:①营养支持,低盐、高蛋白、高糖、低脂饮食,既可维持足够的营养,又能减少乳糜的生成,促使破裂口愈合或经过2~3周后淋巴管侧支循环建立,必要时可禁食,行全胃肠外营养治疗^[18];②B超引导下胸腔抽液或闭式引流,有利于肺复张;③必要时呼吸支持治疗;④生长抑素治疗,其目的是减少乳糜液的产生^[19]。本研究中的3例患者经静脉泵入生长抑素后,胸腔内的乳糜量显著减少。此外,根据报道,如保守治疗2~3周,乳糜量未见减少或每天乳糜量大于1 000 mL,持续5 d以上,或因大量乳糜丢失导致营养代谢并发症时,可行胸导管结扎术,成功率约90%^[20-21],因胸导管有丰富的侧支循环不会影响淋巴回流。传统的胸导管结扎术是从右侧开胸,于横膈食管裂隙上方结扎胸导管,近年来主要采用的则是胸腔镜下胸导管结扎术^[22]。

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