

论 著

增强CT对下咽癌患者甲状软骨受累诊断的价值

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【摘要】目的 分析增强CT诊断下咽癌患者甲状软骨受累的临床价值。**方法** 研究对象为我院自2015年1月-2018年1月收治的86例下咽癌患者, 均经手术病理证实, 术前增强CT影像资料无缺失; 以手术病理结果为对照, 比较增强CT诊断下咽癌患者甲状软骨受累的临床价值。**结果** 86例下咽癌患者中, 54例病灶位于梨状窝, 表现为环形黏膜下浸润形态, 其中29例侵犯至杓会厌皱襞及喉腔, 19例侵犯至喉旁间隙, 6例舌根部及口咽部受累; 32例位于咽后壁, 27例肿瘤外突生长, 5例浸润性生长, 14例肿瘤沿咽后壁向上浸润, 18例向下浸润。71例可见不规则软组织密度团块, 15例咽壁广泛增厚, 常规CT平扫66例为等密度或低密度, 增强扫描呈明显不均匀强化表达, 且边界清晰; 70例伴颈淋巴结转移, 增强扫描时可见环形强化, 9例病灶较大患者可见颈部弥漫性低密度影。与病理结果对照, 增强CT诊断下咽癌患者甲状软骨受累的灵敏度为64.28%、特异度为89.65%、准确率为81.39%、阳性预测值为75.00%、阴性预测值为83.87%, kappa值0.560。**结论** 增强CT诊断下咽癌患者甲状软骨受累具一定临床价值, 值得进一步深入探究。

【关键词】 增强CT; 下咽癌; 甲状软骨受累; 诊断价值**【中图分类号】** R739.63**【文献标识码】** A**DOI:** 10.3969/j.issn.1672-5131.2019.05.010

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Value of Enhanced CT in the Diagnosis of Thyroid Cartilage Involvement in Patients with Hypopharyngeal Carcinoma

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[Abstract] Objective To analyze the clinical value of enhanced CT in the diagnosis of thyroid cartilage involvement in patients with pharyngeal carcinoma. **Methods** 86 cases of patients with hypopharyngeal carcinoma who were treated in our hospital from January 2015 to January 2018 were selected for the study and were confirmed by surgical pathology, and there were no missing CT imaging data before operation. The results of surgical pathology were taken as controls to compare the clinical value of enhanced CT in the diagnosis of thyroid cartilage involvement in patients with hypopharyngeal carcinoma. **Results** Among the 86 patients with hypopharyngeal carcinoma, 54 lesions were located in the pear-shaped vortex and showed a ring-shaped submucosal infiltration, of which 29 cases were invaded to aryepiglottic fold and laryngeal cavity and 19 cases were invaded to the paralaryngeal space and 6 cases were invaded to tongue root and pharynx orals. 32 cases were located in the posterior pharyngeal wall with 27 cases of tumor outgrowth and 5 cases of invasive growth, and 14 cases infiltrated upward along the posterior pharyngeal wall and 18 cases infiltrated downward. The irregular soft tissue density unity block was seen in 71 cases, and extensively thickened pharyngeal wall was shown in 15 cases, and conventional CT plain scan showed 66 cases were of equal density or low density, and enhanced scan showed obvious uneven enhancement expression and clear boundary. 70 cases were with cervical lymph node metastasis and circular enhancement was seen in the enhanced scan, and 9 patients with larger lesions were with diffuse low-density shadow of neck. Compared with pathological results, the sensitivity, specificity, accuracy, positive predictive value, negative predictive value and kappa value of enhanced CT in the diagnosis of thyroid cartilage involvement in patients with pharyngeal carcinoma were 64.28%, 89.65%, 81.39%, 75.00%, 83.87% and 0.560. **Conclusion** Enhanced CT has certain clinical value in the diagnosis of thyroid cartilage involvement in patients with pharyngeal carcinoma, and it deserves further investigation.

[Key words] Enhanced CT; Hypopharyngeal Carcinoma; Thyroid Cartilage Involvement; Diagnostic Value

下咽癌作为头颈部恶性肿瘤之一, 以鳞状细胞癌常见, 多发于梨状窝区或下咽后壁区, 其发病位置解剖构造特殊, 极为隐匿, 早期亦无特异性临床症状或体征, 随肿瘤生长可出现黏膜下播散、局部淋巴结转移等病理表现, 并侵犯颈部其他重要结构组织^[1-2]; 而肿瘤组织是否侵及甲状软骨是下咽癌T分期的决定性因素^[3]。CT在下咽癌的临床诊治中发挥一定价值, 对下咽癌肿瘤黏膜下扩散程度、软骨受累情况等信息进行表达, 但受肿瘤侵犯范围、甲状软骨不规则骨化等因素影响, 评估恶性肿瘤甲状软骨受累时存在一定局限性; 加之研究对象病理分期差异, CT诊断甲状软骨受累的临床价值仍有歧义^[4]。鉴于此, 现回顾性分析86例下咽癌患者的增强CT影像资料, 旨在进一步补充及完善下咽癌患者甲状软骨受累的临床诊断, 具体报道如下。

1 资料与方法

1.1 一般资料 研究对象为我院自2015年1月~2018年1月收治的

86例下咽癌患者,均有完整增强CT、手术病理结果,增强CT扫描前均未行下咽癌手术或放化疗等针对性治疗,其中男70例,女16例,年龄40~81岁,平均(59.87±10.66)岁,入院就诊时37例伴咽部异物感,40例咽喉部疼痛,49例吞咽困难,69例声音嘶哑,30例有颈部包块,11例有呼吸困难症状;经手术病理证实28例患者肿瘤组织侵犯甲状腺软骨,其余58例甲状腺软骨未见受累迹象;参照AJCC分期,Ⅱ期10例,Ⅲ期45例,Ⅳ期31例。

1.2 方法 设备型号为Philips ict256,扫描时患者取仰卧位,嘱其平静呼吸或屏气,禁止吞咽,扫描范围为舌骨至颈根部,先行横轴位CT增强扫描(管电流200mAs、管电压120KV、重建层厚1.25mm、准直0.625mm,螺距0.984:1,窗宽/窗位4000/700HU、350/40HU),增强扫描对比剂为碘海醇,应用高压注射器经前臂外周静脉注射100ml碘海醇,注射速率3ml/s,注射后30s开始扫描。

1.3 图像分析 CT扫描结束后由两位高年资影像学医师采用双盲法阅片,依据影像资料对肿瘤病变位置、病变形态、与周围毗邻组织关系、肿瘤组织浸润范围及是否累及甲状腺软骨组织进行评价,取统一意见为最终诊断结果,若有歧义,则进一步协商统一或由上级医师共同商讨并给出最终诊断结果。

1.4 统计学分析 SPSS 20.0软件进行统计学分析,计数资料用例或%表示,计量资料用($\bar{x} \pm s$)表示,以kappa值代表CT与病理结果的一致性,kappa值<0.40提示一致性差;0.4~0.6提示一致性尚可;>0.6提示一致性良好,P<0.05提示差异有统计

学意义。

2 结 果

2.1 86例下咽癌患者CT影像特征 86例下咽癌患者中,54例病灶位于梨状窝,其余32例均位于咽后壁,71例可见不规则软组织密度团块,15例可见咽壁广泛增厚,常规CT平扫时,66例为等密度或低密度,增强扫描呈明显不均匀强化表达,且边界清晰;54例病灶位于梨状窝的下咽癌患者,均表现为环形黏膜下浸润形态,29例侵犯至杓会厌皱襞及喉腔,19例侵犯至喉旁间隙,6例舌根部及口咽部受累;而32例病灶位于咽后壁患者肿瘤中,27例肿瘤外突生长,5例浸润性生长,14例肿瘤沿咽后壁向上浸润,18例向下浸润;70例伴颈淋巴结转移,增强扫描时可见环形强化,9例病灶较大患者可见颈部弥漫性低密度影。

2.2 增强CT诊断下咽癌患者甲状腺软骨受累 增强CT扫描共计检出甲状腺软骨受累24例,其中16例肿瘤仅侵犯甲状腺软骨内板,8例穿过甲状腺软骨侵犯外板,与病理结果对照,增强CT诊断下咽癌患者甲状腺软骨受累的灵敏度为64.28%、特异度为89.65%、准确率为81.39%、阳性预测值为75.00%、阴性预测值为83.87%,kappa值0.560,见表1。

2.3 病例分析 病例1,男,54岁,入院时自述咽喉疼痛,吞咽困难,伴声音嘶哑;术前CT未见明显甲状腺软骨受累迹象,但术

后病理证实肿瘤组织侵犯至前联合甲状软骨,见图1(CT影像)、图2(术后病理:HE,×200倍)。病例2,女,49岁,入院时自述咽喉疼痛,吞咽困难,声音嘶哑,术前CT显示左侧甲状软骨有受累迹象,但术后病理证实肿瘤并未侵犯至甲状软骨,见图3(CT影像)、图4(术后病理:HE,×200倍)。

3 讨 论

于下咽癌患者,若肿瘤侵犯甲状腺软骨但受累范围局限于内板则提示T3期,若穿过甲状腺软骨侵犯外板则为T4期,过高诊断则可能导致术中过度切除,多低诊断则可能增加局部肿瘤残留或复发风险,因此,术前采取何种手段有效明确甲状腺软骨是否受累是治疗关键^[5-6]。喉镜虽是咽喉部肿瘤诊断分期的首选检查手段,但其在反应咽喉部恶性肿瘤深部浸润、淋巴结转移及喉软骨、喉旁间隙受累情况时具一定局限性,尤其时下咽癌,因肿瘤黏膜下浸润生长,临床极易误诊为炎症反应;而MRI在评估恶性肿瘤侵犯甲状腺软骨上虽具显著优势,但MRI扫描时长过长,呼吸运动、吞咽活动等因素易造成诊断特异性不佳,且不适用于假牙或体内有金属支架患者^[7-9]。CT则与MRI类似^[10-11],均可对肿瘤浸润、周围组织受累情况、淋巴结转移等信息进行表达,且本研究所应用的飞利浦Brilliance iCT,其扫描速度达0.27s/圈,也称之为“极速CT”,即使扫描整个躯干亦仅

表1 增强CT诊断下咽癌患者甲状腺软骨受累

增强CT	病理诊断结果		合计
	阳性	阴性	
阳性	20	4	24
阴性	8	54	62
合计	28	58	86

需5s,有效规避MRI扫描时长过长所致的呼吸运动、吞咽活动伪影;并在极速扫描基础上捕捉最佳时像,获得更详细、清晰及完整的三维诊断图像,适应群体更广泛。

既往研究指出,下咽部软组织与肿瘤组织天然对比缺乏,常规CT平扫密度差别细微,仅表现出结构性增生、变形,或正常脂肪间隙消失等,亦导致误漏诊^[12],本研究也有类似结论,常规平扫时多表现为等密度或低密度;而增强扫描后则呈明显不均匀强化表达,且边界清晰,分析这与增强扫描认为强化肿瘤与下咽部、喉部软组织对比有关,组织密度差异扩大,故更利于临床辨别肿瘤组织基本形态及侵犯范围。进一步研究结果显示,增强CT下咽癌患者甲状软骨受累的灵敏度为64.28%、特异度为89.65%、准确率为81.39%、阳性预测值为75.00%、阴性预测值为83.87%,kappa值0.560,提示一致性尚可;而李海洋等^[13]报道增强CT诊断恶性肿瘤侵犯甲状软骨的灵敏度为57.00%、特异度为86.00%、阳性预测值为65.00%、阴性预测值为81.00%,kappa值0.45,虽略低于本研究,造成差异的原因或与研究对象个体差异有关,加之其报道对象并非单一下咽癌患者,但亦可提示增强CT用于诊断下咽癌患者甲状软骨受累具一定临床应用价值。但本研究中,部分患者仍然存在过高或过低评估现象,如病例分析中2例患者,1例行增强CT并未见甲状软骨有明显受累迹象,但术后病理证实甲状软骨受累,后进一步分析,分析或因肿瘤累及声门而导致漏诊^[14];另1例术前CT虽可见甲

状软骨受累,但术后病理证实未侵犯甲状软骨,分析或因肿瘤侵犯前联合有关^[5]。

综上所述:增强CT诊断下咽癌患者甲状软骨受累一致性尚可,但与之相关临床报道相对少见,需进一步采集更大样本数进一步深入探究。

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(本文图片见封三)

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