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超声影像在原发性甲状腺鳞状细胞癌中的临床诊断价值

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摘要 目的:探讨超声影像在原发性甲状腺鳞状细胞癌(PSCCT)中的临床诊断价值。**方法:**收集住院经组织病理学确诊的 PSCCT 患者 6 例,回顾性分析其临床一般资料及超声影像学资料。**结果:**6 例 PSCCT 患者年龄(49-77)岁,平均年龄 64 岁,临床上均表现为甲状腺肿大,4 例伴呼吸困难,3 例伴吞咽困难,3 例伴声音嘶哑。6 例患者均死亡,术后生存 4-13 个月,平均术后生存期 8.5 个月。超声影像学特点:①6 例 PSCCT 病灶大小较大(最大直径 3.0-5.1 cm),结节为形态不规则,且边界不清晰的实性混合性回声肿块,内部可见片状极低回声区。2 例患者的肿块内部存在少许微量钙化,另外 4 例则无明显钙化表现;②结节突破甲状腺被膜 3 例,且与甲状腺周围组织分界不清晰;③4 例结节内部血流信号表现为少量,呈点线状分布,2 例结节内部血流信号表现为中量;④5 例肿块可测得高阻力频谱(RI 0.72-0.88);⑤ 3 例患者伴有颈部异常淋巴结。**结论:**PSCCT 具有一定超声影像特点,与临床表现相结合有助于该病的鉴别诊断。

关键词:甲状腺;癌,鳞状细胞;超声检查

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The Clinical Value of Ultrasonic Characters in the Diagnosis of Primary Squamous Cell Carcinoma of the Thyroid

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ABSTRACT Objective: To explore the clinical value of ultrasonic characters in the diagnosis of primary squamous cell carcinoma of the thyroid (PSCCT). **Methods:** The clinical data and ultrasonic characters of 6 patients with PSCCT confirmed by pathology post surgery were retrospectively reviewed. **Results:** The age range of the 6 patients with PSCCT were from 49 to 77, and the average age was 64.All of 6 patients were presented with a enlargement of the thyroid gland, 4 patients had difficulty in breathing, 3 patients had difficulty in swallowing, and 3 patients had hoarseness. All patients died and the postoperative survival time was 4-13 months, average survival time was 8.5 months. The ultrasonic characters of 6 patients with PSCCT showed that, the size of lesions was large(a maximum diameter of 3.0-5.1 cm), all of 6 lesions appeared as single solid mixed-echogenicity mass including irregular lamellate marked hypoechoic region, with irregular margin and undefined boundary. Only 2 lesions exhibited microcaleifieation and another 4 lesions had no calcification, 3 1esions exhibited a sign of breakthrough thyroid envelope. Color Doppler flow imaging showed 4 patients had few blood flow and 2 patients had moderate blood flow, a higher vascular resistance spectrum was detected in 5 lesions (RI 0.72-0.88). 3 patients exhibited abnormal neck lymph node. **Conclusions:** The characteristic ultrasonic appearance, combined with the clinical features, enables a convincing preoperative diagnosis of PSCCT.

Key words: Thyroid Gland; Carcinoma, squamous cell; Ultrasonography

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前言

原发性甲状腺鳞状细胞癌 (primary squamous cell carcinoma of the thyroid,PSCCT) 是临床上一种非常罕见的头颈部恶性肿瘤,在所有甲状腺恶性肿瘤中约占 1%,发病率非常低,在老年人中比较常见[1]。另外由于 PSCCT 肿瘤恶性程度高、侵袭力强、生长速度快、易发生转移且病死率高[2],故早期诊断进行及时治疗对于 PSCCT 患者来说具有相当重要的意义。但目前很多研究只针对一些常见病理类型的甲状腺癌，如滤泡状癌、乳头状癌等进行超声影像学诊断分析，对 PSCCT 的超声影像学的详细研究却是非常少,大部分为个案报道。本研究旨在通过分析住院经组织病理学确诊的 PSCCT 患者的临床一般资料及超声影像学资料来探讨超声影像在 PSCCT 中的诊断价值。

1 资料与方法

1.1 研究对象

收集本院 2000 年 1 月至 2013 年 12 月间住院手术切除治疗患者的甲状腺鳞癌标本，其中经组织病理学确诊的 PSCCT 患者共 6 例,回顾性分析其临床一般资料及超声影像学资料。6

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例 PSCCT 患者中男 3 例,女 3 例,年龄(49-77)岁,平均年龄 64 岁,病程为 1 周到 3 月。6 例患者均进行了手术广泛切除,切除范围有发病部位腺叶、峡部及部分对侧甲状腺,且术后均进行了局部放疗。术前颈部彩色超声及 CT 检查均提示具有甲状腺恶性结节倾向性。另外用细针抽吸的活组织检查也均提示恶性倾向,但鳞状细胞癌未提示。

1.2 检测仪器

彩色超声诊断仪型号为 siemens S2000 型及 Philips IE33 型,超声探头采用高频线阵探头,频率为 8-10 MHz。

1.3 检测方法

检测内容:(1)颈部甲状腺常规超声检查:遵循甲状腺常规超声检查步骤要求进行检查,观察内容包括了甲状腺组织的回声特点,是否合并结节,结节的部位、形态、大小、边界,结节的内部结构和回声、是否钙化和钙化的类型;(2)甲状腺被膜和周边组织结构与结节的关系等灰阶超声表现;(3) 结节周边及内部的血流分布检测:采用彩色多普勒超声显像(CDI)功能,分析其血流分布情况,按血流信号的丰富程度分类:① 无血流,结节内没有明显的血流信号;② 少量血流,结节内血流信号比周围甲状腺组织少;③ 中量血流,结节内血流信号和周围甲状腺组织差不多;④ 丰富血流,结节内血流信号比周围甲状腺组织多。(4)结节内血流的阻力指数(RI)检测:采用频谱多普勒进行检测;(5)颈部异常淋巴结检查:观察颈部是否失去正常淋巴门结构、内部回声是否增高、有无周边型血供、以及有钙化或囊性变等病变。

2 结果

2.1 临床特点

6 例 PSCCT 患者临床上均表现为甲状腺肿大及食管或气管受压的症状,其中呼吸困难者 4 例,吞咽困难者 3 例,声音嘶哑者 3 例。患者甲状腺肿块质硬,活动性差且无痛,与周围组织有不同程度的粘连。所有患者发病前均有甲状腺疾病史,桥本氏甲状腺炎 2 例、甲状腺结节 4 例,另外短期内(1 周至 3 个月内)甲状腺结节有明显变大。6 例患者均进行了手术广泛切除,切除范围有发病部位腺叶、峡部及部分对侧甲状腺,且术后均进行了局部放疗。本研究中的所有患者均死亡,术后生存 4-13 个月,平均术后生存期 8.5 个月。6 例患者死因均由于甲状腺周围的气管、食管和喉组织被癌组织广泛浸润侵袭以致发生呼吸困难而死亡。6 例患者具体临床资料见表 1。

表 1 6 例原发性甲状腺鳞状细胞癌患者的临床资料

Tabel 1 The clinical data of 6 patients with PSCCT

患者 Patients	性别 Gender	年龄(岁) Age(years)	声音嘶哑 Hoarseness	呼吸困难 Dyspnea	吞咽困难 Dysphagia	术后生存期(月) Postoperative survival time (months)
1	男 M	54	是 Yes	否 No	否 No	4
2	女 F	77	否 No	是 Yes	是 Yes	11.5
3	女 F	69	否 No	是 Yes	是 Yes	9.5
4	男 M	49	是 Yes	是 Yes	否 No	6
5	男 M	73	否 No	是 Yes	是 Yes	13
6	女 F	62	是 Yes	否 No	否 No	7

2.2 超声影像学特点

6 例 PSCCT 的具体超声影像学资料见表 2。从表 2 可知:(1)6 例 PSCCT 患者的病灶大小较大(最大直径 3.0-5.1cm),结节为形态不规则,且边界不清晰的实性混合性回声肿块,内部可见片状极低回声区,肿块位于甲状腺右叶上极、左叶下极各 1 例,位于甲状腺左叶中下极和右叶下极各 2 例。2 例患者的肿块内部存在少许微量钙化,另外 4 例则无明显钙化表现;(2)结节突破甲状腺被膜 3 例, 且与甲状腺周围组织分界不清晰,另外 3 例患者的结节则只靠近甲状腺被膜;(3)4 例结节内部血流信号表现为少量, 呈点线状分布,2 例结节内部血流信号表现为中量;(4)5 例肿块可测得高阻力频谱 (RI 0.72-0.88);(5)3 例患者伴有颈部异常淋巴结。

3 讨论

甲状腺癌是临床上一种很常见的甲状腺恶性肿瘤,在全身恶性肿瘤中约占 1%的比例, 是近年来发病率增长最快的实体恶性肿瘤之一[3,4]。其病理形态学表现较复杂具有多样性,包括乳头状癌、滤泡状癌、髓样癌、未分化癌等,其中乳头状癌最常见[5]。而原发性甲状腺鳞状细胞癌(PSCCT)是甲状腺癌中非常罕见的一种,约占甲状腺癌的 1%,该肿瘤恶性程度高,具有侵袭力强、生长速度快、易发生转移且病死率高的特点,早期诊断进行治疗对降低患者死亡率具有非常重要的意义[6],而通过患者临床表现特点再配合超声影像学等辅助检查能够对医师发现该病并进行及时诊断治疗具有一定的帮助[7]。

目前关于 PSCCT 的组织来源仍存在争论, 观点主要有以下几种:① 化生学说发病机制,为学术界普遍观点,即甲状腺鳞状细胞由甲状腺滤泡上皮细胞在各种甲状腺疾病病理条件下逐渐转化而来,并不断恶化而出现鳞状细胞癌;② 胚胎发育过程中甲状腺舌管等与甲状腺发育密切相关的组织残留的鳞状上皮细胞转移到腺体表面或实质中,然后恶变导致形成鳞状细胞癌 ;③ 直接由甲状腺角化癌变所致[8,9]。

甲状腺鳞状细胞癌可分为原发性鳞状细胞癌和继发性鳞状细胞癌,两者在病理上表现无明显差别[10]。鉴别诊断可通过临床和影像学检测判断其是否由其他组织鳞状细胞癌直接浸

表 2 6 例原发性甲状腺鳞状细胞癌患者的超声影像学资料

Table 2 The ultrasonic characters of 6 patients with PSCCT

患者 Patients	发病部位 Location	肿瘤最大直径(cm) Maximum diameter(cm)	内部回声 Internal echo	内部钙化 Internal calcification	结节与甲状腺被膜关系 The relationship between nodules and thyroid membrane	颈部异常淋巴结 Abnormal neck lymph node	血流阻力指数 RI Blood flow resistance index RI	血流丰富程度 Plenty of blood flow
1	右叶下极 Under the right lobe	3.4	实性混合回声 Solid mixed echo	无 No	突破被膜 Breakthrough thyroid capsule	有 Yes	0.78	少量 Few blood flow
2	左叶下极 Under the left lobe	3.9	实性混合回声 Solid mixed echo	无 No	靠近被膜 Close to thyroid capsule	无 No	0.81	少量 Few blood flow
3	右叶上极 Upper the right lobe	4.1	实性混合回声 Solid mixed echo	微钙化 Microcalcification	突破被膜 Breakthrough thyroid capsule	有 Yes	0.88	少量 Few blood flow
4	左叶中下极 Lower pole of the left lobe	5.1	实性混合回声 Solid mixed echo	微钙化 Microcalcification	靠近被膜 Close to thyroid capsule	无 No	0.83	少量 Few blood flow
5	左叶中下极 Lower pole of the left lobe	4.8	实性混合回声 Solid mixed echo	无 No	突破被膜 Breakthrough thyroid capsule	有 Yes	0.72	中量 Moderate blood flow
6	右叶下级 Under the right lobe	3.0	实性混合回声 Solid mixed echo	无 No	靠近被膜 Close to thyroid capsule	无 No	0.61	中量 Moderate blood flow

润或转移至甲状腺所致[11],除此之外 PSCCT 的诊断还需与伴部分鳞状细胞化生的其他类型甲状腺疾病进行鉴别。本研究 6 例患者进行手术切除治疗前均采用细针抽吸进行活组织检查,均未提示为鳞状细胞癌,说明术前采取细针抽吸进行活组织检查很难对 PSCCT 的进行诊断[12]。PSCCT 常伴有其他甲状腺病变,如桥本甲状腺炎、乳头状癌等。本研究中 2 例 PSCCT 患者就伴有桥本甲状腺炎。

本研究 6 例 PSCCT 患者的病灶结节为形态不规则,且边界不清晰的实性混合性回声肿块,与大多数甲状腺恶性结节的超声特点相一致[13,14]。然而却又与其具有一定的区别,PSCCT 病灶的肿块大小较大,内部可见片状极低回声区。病灶肿块大小较大说明 PSCCT 发展较为迅速,而内部片状极低回声区则可能说明肿瘤细胞发生了聚集[15]。甲状腺甲状腺滤泡状癌结节大小一般较大,且边界一般较规则,结节回声表现为等或高回声[16,17],故通过超声影像较易与之相鉴别。虽以往也有研究报道 PSCCT 患者病灶出现大量钙化情况[18],但本研究中结节内部只有 2 例发生了少许微量钙化,另外 4 例则无明显钙化表现,说明 PSCCT 病灶是否钙化以及钙化程度无特异性。本研究中 PSCCT 病灶大小虽大但彩色多普勒超声显像仅显示为少到中量血供,可能与间质中纤维组织大量增生或癌组织侵袭血管形成血栓有关,大多数病灶较大的甲状腺乳头状癌彩色多普勒超声显像表现为丰富血供[19],低血供可成为 PSCCT 与甲状腺乳头状癌相鉴别的内容之一。本研究中结节突破甲状腺被膜的 PSCCT 患者有 3 例,且其结节均与甲状腺周围组织分界不清晰,术后证实均存在颈部淋巴结转移,这与某些学者研究结果类似[20],说明 PSCCT 超声影像学可以辅助判断是否发生颈部淋巴结转移。

总而言之,虽然超声影像在判断甲状腺癌病例类型上存在局限性,但 PSCCT 的一些超声影像学特点仍可以帮助鉴别诊断 PSCCT。

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