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甲状腺结节数对钙化甲状腺病变良恶性的鉴别价值*

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摘要 目的:通过甲状腺病变术前超声声像图与术后病理间的对照,分析结节单发或多发在鉴别伴钙化甲状腺病变良恶性中的意义。**方法:**回顾性分析我院2010年1月至2013年12月收治的218例甲状腺病变患者的临床资料,将患者术前超声声像图与术后病理结果进行对比。**结果:**术前超声探及甲状腺单发结节伴钙化其术后病理恶性比例显著高于多发结节伴钙化,差异具有统计学意义($P<0.05$);多发结节伴钙化其术后病理恶性比例显著高于多发结节不伴钙化,差异具有统计学意义($P<0.05$)。**结论:**术前超声探及甲状腺单发结节伴钙化其术后病理恶性比例较高,应积极手术治疗,多发结节伴钙化因其术后病理恶性病理较低,不宜作为手术治疗甲状腺病变的绝对指征。

关键词: 甲状腺结节;钙化;良恶性;鉴别价值

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Clinical Significance of Thyroid Nodule Quantity in Differentiating Benign and Malignant Thyroid Lesions with Calcification*

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ABSTRACT Objective: To investigate the correlation between thyroid nodule quantity and benign or malignant thyroid lesions with calcification by comparing preoperative ultrasonic image with postoperative pathology. **Methods:** The preoperative ultrasonic image and postoperative pathological diagnosis of 218 patients with thyroid diseases who were diagnosed in our hospital from Jan 2010 to Dec 2013 were studied, analyzed and compared to provide a reference for the clinical diagnosis and treatment. **Results:** Postoperative pathological diagnosis indicated that the malignant incidence of thyroid single nodule with calcification was higher than thyroid multiple nodules with calcification ($P<0.05$), thyroid multiple nodules with calcification was higher than thyroid multiple nodules without calcification ($P<0.05$). **Conclusion:** Thyroid single nodule with calcification examined by preoperative ultrasound has a higher incidence of postoperative malignance, and should be treated with surgery; while thyroid multiple nodules with calcification have a relatively lower incidence of postoperative malignance, and are not absolute indicators for surgical treatment.

Key words: Thyroid nodule; Calcification; Benign or malignant; Differentiation

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前言

甲状腺结节是内分泌系统的常见病和多发病,甲状腺结节中恶性结节的患病率高达5%-15%^[1,2]。由于良恶性甲状腺结节的临床处理完全不同,对患者生存质量的影响和涉及的医疗花费也有显著性差异。因此,甲状腺结节评估的要点是良恶性的鉴别。有研究表明,甲状腺结节超声与手术病理结果存在高度相似性^[3]。因此,术前评估甲状腺结节良恶性的首选方法为高分辨率超声^[4]。在甲状腺结节的超声检查中,钙化是常见的征象之一,其中恶性结节的钙化占43.8%~75.2%,良性病变的钙化占10.9%~15.7%^[5-7]。通常认为,甲状腺恶性肿瘤多表现为单一结

节,而多发结节常为良性肿瘤^[8]。本研究拟将超声所显示伴钙化甲状腺病变分为单发结节伴钙化与多发结节伴钙化,旨在探讨此分类对鉴别甲状腺肿瘤良恶性的参考价值。

1 资料和方法

1.1 研究对象

选择2009年1月至2012年12月海军总医院普外科收治的接收甲状腺手术的患者。病例纳入标准:符合《甲状腺结节和分化型甲状腺癌诊治指南》中甲状腺结节定义的患者,即各种原因致使甲状腺内出现一个或多个组织结构异常的团块,此团块经甲状腺超声证实并入院行手术治疗者。排除标准为:年龄

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小于 14 周岁;既往已行甲状腺切除者;住院前已经 FNAC 证实肿瘤良恶性者;共 230 例甲状腺结节患者纳入研究,其中男 40 例,女 190 例,平均年龄 45 ± 22 岁。

1.2 研究方法

所有纳入标准患者均在我院超声科行甲状腺超声检查。根据超声检查结果将患者分为 A、B、C、D 三组:其中 A 组为超声发现甲状腺内多发(≥ 2)结节伴钙化灶;B 组为超声发现甲状腺内单发结节伴钙化灶;C 组为超声发现甲状腺内多发(≥ 2)结节无钙化灶;D 组为甲状腺单发结节无钙化灶。待纳入标准患者行手术治疗且术后病理回报后,统计 A、B、C、D 各组良恶性甲状腺结节患者的个数。

1.3 统计学方法

采用 SPSS12.0 软件进行数据分析,计数资料组间比较采用 χ^2 检验,进行 A、B、C、D 四个实验组间的两两比较,其检验水准 α' 为 $\alpha/5=0.01$,即 $P' < 0.01$ 认为有统计学差异。

2 结果

230 例纳入研究患者中有 12 名患者未行手术治疗,218 例患者完成试验。其中 A 组患者共 66 名:术后经病理证实良性结节患者 44 名,恶性结节患者 22 名;B 组患者共 32 名:术后经病理证实良性结节患者 8 名,恶性结节患者 24 名;C 组患者共 89 名:术后经病理证实良性结节患者 87 名,恶性结节患者 12 名;D 组患者共 21 名:术后经病理证实良性结节患者 18 名,恶性结节患者 3 名。

表 1 四组患者术后病理确诊恶性比例差异

Table 1 Differences of percentage of postoperative pathological diagnosed malignance in the four groups

Group	Malignant	Benign	Total	Percentage of malignance
A	22	44	66	33.3%
B	24	8	32	75%
C	12	87	99	12.1%
D	3	18	21	14.3%
Total	50	168	218	22.9%

如表 1 所示,A 组与 B 组比较,恶性比例差异有统计学意义 ($P < 0.01$),A 组与 C 组比较,恶性比例差异有统计学意义 ($P < 0.01$)。即,甲状腺单发结节伴钙化其恶性比例显著高于多发结节伴钙化($P < 0.01$),多发结节伴钙化其恶性比例显著高于多发结节不伴钙化($P < 0.01$)。

3 讨论

3.1 甲状腺良恶性结节均可发生钙化

近年来甲状腺瘤的发病率明显增加,临床上有多种甲状腺疾病,如甲状腺退行性变、炎症、自身免疫以及新生物等都可以表现为结节,其中良性结节占绝大多数。甲状腺结节可以单发,也可以多发,多发结节比单发结节的发病率高,但单发结节甲状腺癌的发生率较高。甲状腺结节无论良、恶性均可发生钙化。

甲状腺钙化过程可分为砂粒体、间质钙化、骨化三类^[8]。其中砂粒体在甲状腺乳头状癌中最常见,在其他肿瘤及非肿瘤病变中很少见。其机制为,①肿瘤乳头血管基底膜增厚、血栓形成、钙化、肿瘤细胞坏死而导致砂粒体形成;②肿瘤细胞产生的胶原产物和胶原产物的钙化形成砂粒体。③胞浆内的砂粒体前体由完整的肿瘤细胞释放,继而发生钙化^[9]。良性甲状腺发生钙化的产生机制为间质钙化和骨化,在甲状腺结节增生和退变交替发生过程中,甲状腺内纤维组织增生造成纤维化、钙化,或纤维组织增生造成甲状腺出血、坏死、血肿吸收后结节囊性变,形成结节壁钙化和纤维间隔钙化,故钙化易发生于肿块边缘^[10]。

3.2 多发结节合并钙化恶性率显著低于单发结节合并钙化

在我们所收集的 66 例甲状腺多发结节伴钙化中,结节性甲状腺肿或桥本氏病共 44 例,乳头状癌 22 例,其中大多伴结节性甲状腺肿或桥本氏病;而 32 例甲状腺单发结节伴钙化中,24 例恶性为甲状腺癌,3 例为甲状腺腺瘤,5 例为结节性甲状腺肿;89 例甲状腺多发结节无钙化仅有 12 例为甲状腺癌(伴或不伴结节性甲状腺肿或桥本氏病),其余均为结节性甲状腺肿或桥本氏病;21 例甲状腺单发结节不伴钙化仅有 3 例为甲状腺癌,14 例为甲状腺腺瘤,4 例为结节性甲状腺肿。统计结果提示:甲状腺单发结节伴钙化恶性比例(75%)显著高于多发结节伴钙化(33.3%),多发结节伴钙化恶性比例(33.3%)同样显著高于多发结节不伴钙化(12.1%)。

我们收集的病例中,无论甲状腺结节是否存在钙化,恶性结节比例(27.98%)都较正常人群高(5-15%)^[1],考虑是选择性收治的因素(许多超声诊断考虑良性病变的患者并不选择手术治疗)。而在 34 例最终诊断为恶性肿瘤且术前超声诊断为多发结节的病例中,病理诊断多发癌结节仅 11 例,其余为单发癌结节合并结节性甲状腺肿或桥本氏病。尽管甲状腺乳头状癌常呈多灶性^[11-13],但通常表现为一个较大的病灶伴随一些小于 1cm 或镜下才能发现的病灶^[14-16],临床超声诊断甲状腺时 0.5cm 以下的癌灶有时难以被探及,且钙化程度与患者肿瘤大小呈正相关,肿瘤直径越大,发生钙化的可能性越高,小于 1cm 的癌灶通常不伴有钙化,常常被当成良性结节对待^[17]。故临床超声所探及乳头状癌征象仍以 >1 cm 的单发结节较多。

文献报道结节性甲状腺肿和桥本氏病合并甲状腺癌的发生率分别为 4%-17%和 0.5%-38%^[18]。临床上甲状腺癌合并结节性甲状腺肿同样表现为多发结节,人群中结节性甲状腺肿患病人数远多于甲状腺癌^[19],且结节性甲状腺肿同样可在术前超声呈现钙化征。因此甲状腺多发结节合并钙化其术后病理证实恶性比例较单发结节明显偏低。

3.3 多发结节合并钙化不易作为手术治疗甲状腺病变的绝对指征

因甲状腺腺瘤超声声像图与手术病理对照存在着高度相符,高分辨率超声是评估甲状腺结节良恶性的首选方法^[2]。临床上除利用甲状腺针刺活组织检查、相关生化检查诊断外,还应利用超声检查的特异性,为临床诊断增加确诊率。微小钙化、针

尖样弥散分布或簇状分布的钙化是提示甲状腺癌的重要征象^[20]。本研究中,B超提示甲状腺单发结节伴钙化的发生率为60.4%,其术后病理证实为恶性者高达45.3%;而多发结节中同时伴钙化的发生率约为40%,但其术后病理证实为甲状腺癌者仅为13.3%。前者恶性率高,应积极手术治疗;而后者恶性率较低,不宜作为手术治疗甲状腺病变的绝对指征,故建议最好在术前经超声引导下穿刺活检或积极随访,密切观察结节变化,择期手术治疗。

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