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Clinical Significance and Ultrasonographic Analysis of Color Doppler Ultrasonography in Breast Cancer

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ABSTRACT

Objective: To explore the clinical value of color Doppler ultrasonography in the diagnosis of breast cancer. **Methods:** 99 cases of breast cancer patients were selected as the research object, retrospective analysis of its clinical treatment data. **Results:** The group of 99 patients, 97 confirmed cases, 2 cases were misdiagnosed, the diagnostic accuracy rate was 97.98%. **Conclusion:** Color Doppler ultrasonography in patients with breast cancer has the advantages of high accuracy, simple operation and noninvasive. It is worthy of promotion.

0 Introduction

Breast cancer is a relatively common kind of malignant tumor, compared with men, women accounted for a higher proportion of about 98% -99% or so, studies have found that in recent years, the incidence of breast cancer in China showed a significant Rising trend, and the incidence of people tend to younger, serious harm to women's health [1-3]. Therefore, early diagnosis of disease, to improve the prognosis of patients with breast cancer has an extremely important significance. Therefore, this article on breast cancer using color Doppler ultrasound diagnosis of clinical effects were discussed, are reported below.

1 Materials and methods

1.1 General information

A total of 99 patients with breast cancer admitted to our hospital from February 2014 to February 2016 were women who were aged 30-70 years (mean± 48.7 15.5) years, of which 5 were bilateral, 50 There were

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44 cases of left side, pathological diagnosis: 5 cases of tubular carcinoma, 10 cases of adenoid cystic carcinoma, 15 cases of lobular carcinoma in situ, 39 cases of medullary carcinoma, 30 cases Sieve tube cancer.

1.2 Methods

All patients underwent color Doppler ultrasonography, select the Siemens color Doppler ultrasound diagnostic instrument, adjust the probe frequency, usually 6-13MHz, check the patient to maintain the supine position, on the bilateral arm, the breast full exposure, in accordance with conventional methods, followed by the mammary axillary extension, central area, the next, the lower, the upper and the upper quadrant and its affiliated lymph nodes were examined, you can also use the probe radial scan around the nipple, and vertical and horizontal Scan together to avoid missing any lesions. During the course of the examination, once the tumor is found, the boundaries of the tumor, the morphology of the lesion, and the internal echo should be observed to determine the size of the aspect ratio and the presence of calcification. At the same time, the color doppler ultrasonography was used to observe the blood flow of the lumps, and the changes of the RI value and the distribution of the blood vessels were determined. Finally, the axillary lymph nodes were examined. It should be noted that in the color doppler examination, it should be timely to adjust the width of the sampling volume, sampling window angle, size and other, and correct the Doppler blood flow angle, to ensure that the direction of blood flow and incident ultrasound beam angle <60 °.

1.3 Observe indicators

1.3.1 Abnormal blood flow performance

Axillary lymph nodes, microcalcifications, there is protruding arterial blood flow, blood flow bending.

1.3.2 Grade of blood flow

① Grade 0: Lesion area does not exist blood flow signal; ② Grade 1: Lesion area 1-2 blood flow signal, was point-like, and blood flow is not much; Grade 2: Lesion area 3- 4 blood flow signal, was punctate, and blood flow more; ④ Grade 3: lesion area vascular> 3, intertwined distribution was reticular, and has a wealth of blood flow [4,5].

2 Results

2.1 Color Doppler ultrasound diagnosis results

All patients were successfully completed the examination, the group of 99 patients, 2 misdiagnosis, confirmed 97 cases, the diagnostic accuracy rate was 97.98%, and 2 cases of misdiagnosed patients, 1 case of breast fibroids, 1 case of breast adenoma Hyperplasia.

2.2 Color Doppler Ultrasound Features

In this group of 99 patients, 52 cases of lymph nodes, accounting for 52.53%; 44 cases of posterior echo attenuation, accounting for 44.44%; 56 cases of small calcification, accounting for 56.57%; 74 cases of aspect ratio greater than 1, accounting for 74.75%; 90 cases of lesion boundary is not clear and irregular lesions, accounting for 90.91%; 87 cases of internal hypoechoic, accounting for 87.88%.

2.3 Color Doppler flow characteristics

The results showed that 95 cases of abnormal blood flow, accounting for 95.96%, of which 56 cases of RI> 0.7, accounting for 56.57% of the blood flow classification: 0 cases 1; 41 cases 2, accounting for 41.41%; 58 Example 3, accounting for 58.59%.

3 Discussion

In women with malignant tumors, breast cancer has a higher incidence, second only to cervical cancer, living in the second, not only affect women's physical and mental health, to a certain extent, also reduced the quality of life of patients [6-9]. The current clinical diagnosis of breast cancer, there are a variety of

methods, including mammography, color Doppler ultrasound and X-ray, although the X-ray characteristics of the lesion can be clearly observed, but with a strong radiation, easy to bring unnecessary harm to patients, and color Doppler ultrasound with simple, noninvasive and other, more easily accepted by the majority of patients[10,11].

The group of 99 patients were successfully completed the examination, which confirmed 97 cases, misdiagnosis in 2 cases, the diagnostic accuracy rate of 97.98%, suggesting that color Doppler ultrasound diagnosis of breast cancer with high accuracy. In this study, we found that color Doppler ultrasonography in the diagnosis of breast cancer patients with the main features of the sonogram: ① 87 cases of this group of internal hypoechoic, accounting for 87.88%, 90 cases of lesion boundary is not clear and lesions Irregular shape, accounting for 90.91%, suggesting that the lesion boundary is not clear or irregular shape, internal hypoechoic, and no capsule can be used as color Doppler ultrasound diagnosis of breast cancer is an important characteristics of the sonogram; Ratio of more than 1, accounting for 74.75%, indicating that the diagnosis of breast cancer in color Doppler ultrasound, tumor aspect ratio can be used as an important indicator, the main reason: the malignant tumor from the normal tissue growth, will increase its anterior and posterior diameter, so the tumor aspect ratio can be used as an important indicator to determine the tumor; ③ 56 cases of this group of small calcification, accounting for 56.57%, suggesting that color Doppler ultrasound can be a small calcification show clearly, diagnostic value. It has been found that the specificity of breast cancer is 95.11% and the positive predictive value is 100%, which is consistent with the results of this study; ④ This group of 44 cases of posterior echo attenuation, accounting for 44.44%, 52 cases of lymph nodes, accounting for 52.53%, but the rear echo attenuation cannot accurately determine the breast cancer, the main reason for the tumor and glandular composition and fibrous tissue. At the same time, 95 cases of abnormal blood flow in this group, accounting for 95.96%, and 56 cases of RI> 0.7, accounting for 56.57%, suggesting that breast cancer as a typical blood vessel-dependent lesions, color Doppler flow imaging diagnosis of breast cancer Higher, and color Doppler ultrasound can be in the tumor and around the rich blood flow signal, help to improve the diagnostic accuracy.

In summary, in the clinical diagnosis of breast cancer, the use of color Doppler ultrasound, can improve the accuracy of diagnosis, help to develop targeted treatment programs, with the promotion of value.

References

[1] Zhang Xiaoguang, Pareda Palharti, Zhang Yu, Nadire Tielie Khan. Meta-Analysis of Diagnostic Value of Color Doppler Ultrasonography in Female Breast Cancer [J]. Chinese Journal of Evidence-Based Medicine, 2013,09 (20): 1073-1079.

[2] He Xiaoyan. Color Doppler Ultrasonography in the Diagnosis and Differential Diagnosis of Breast Cancer [J] Chinese General Practice, 2014,18 (9): 2063-2065.

[3] Hu Juan, Xu Yi, Hu Yongsheng, Li Xia Color Doppler Ultrasound Diagnosis of Breast Cancer Ultrasonographic Features Analysis [J] Shaanxi Medical Journal, 2014,09 (19): 1192-1193.

[4] Li Yingshun. Application of Color Doppler Ultrasonography in Female Breast Diagnosis [J]. China Health Standard Management, 2016,7(07):170-171. [2017-09-18].

[5] Dong Xingbo. Application of High-frequency Color Doppler Ultrasonography in Perioperative Patients with Breast Cancer [J], China Practical Medical, 2016,11(02):79-80. [2017-09-18]. DOI：10.14163/j.cnki.11-5547/r.2016.02.053

[6] Liang Xiyang, Liang Yuling, Wan Zhilan, Huang Dongling, Liu Xingbin, Chen Qihui, Deng Yanfen.

Value of Color Doppler Ultrasonography in Early Breast Cancer Screening in women [J]. China Modern Medicine, 2015,22(07):106-108. [2017-09-18].

[7] Liang Haili. Clinical Value of Color Doppler Ultrasonography in Breast Cancer Diagnosis [J]. China Practical Medical , 2014,9(03):100-101. [2017-09-18]. DOI：10.14163/j.cnki.11-5547/r.2014.03.074.

[8] Xin Lili. Discussion on Clinical Value of Color Doppler Ultrasonography in Breast Cancer Diagnosis [J]. Seek Medical (second half month), 2013,11(10):195-196. [2017-09-18].

[9] Yan Xiuqiong. Value of Color Doppler Ultrasonography in Breast Cancer Diagnosis [J]. Nei Mongol Journal of Traditional Chinese Medicine, 2013,32(03):114-115. [2017-09-18]. DOI：10.16040/j.cnki.cn15-1101.2013.03.070.

[10] Zhang Yuyan, Zhao Jun. Value of Color Doppler Ultrasonography in Breast Cancer Diagnosis [J]. Chinese Community Doctors, 2012,14(26):225. [2017-09-18].

[11] Huang Qun. Important Role of Color Doppler Ultrasnography in Breast Cancer Detection [J]. Chinese Community Doctors, 2012,14(03):231. [2017-09-18].