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◇ ORIGINAL ARTICLE ◇

男性乳癌と女性化乳房症の超音波所見の検討

若木暢々子　　伊藤　吾子　　周山　理紗　　三島　英行

抄　　録

目的：男性乳癌は稀な疾患である．男性最多乳腺疾患である女性化乳房症との鑑別には乳房超音波検査が有用であるが，形態のみでは診断に苦慮することがある．今回 B モードに血流と硬さ評価を加えた超音波所見を後ろ向きに比較検討した．**対象と方法**：2000 年 1 月から 2019 年 10 月に乳房腫瘤や疼痛を主訴に受診し，超音波検査を行い，男性乳癌または老年期女性化乳房症の診断となった 92 例を対象とした．B モードにて形態を nodular，dendritic，diffuse glandular の 3 つに，血流は視覚的に 4 段階に，硬さは Tsukuba elasticity score（スコア）の 5 段階に分類し比較した．女性化乳房症の形態ごとの特徴について検討した．**結果と考察**：男性乳癌は 6 例，女性化乳房症は 86 例であった．B モードでは男性乳癌は全例 nodular で，女性化乳房症は nodular 28 例（32. 6%），dendritic 17 例（19. 8%），diffuse glandular 41 例（47. 7%）であった．血流評価は男性乳癌 5 / 6 例（83. 3%），女性化乳房症 21 / 34 例（61. 8%）が hypervascular または vascular であった（P = 0. 399）．硬さ評価では男性乳癌はスコア 5 が 3 / 5 例（60%），女性化乳房症は 46 / 49 例（93. 9%）がスコア 1 と 2 であり，両群間に有意差を認めた（P < 0. 005）．血流と硬さ評価の Area Under the Curve は 0. 7 と 0. 994 であった．女性化乳房症の nodular，dendritic は 10 / 15 例（66. 7%），8 / 11 例（72. 7%）が hypervascular または vascular であった．Diffuse glandular の 35 / 41 例（85. 4%）は血流が未評価であった．女性化乳房症の形態ごとで硬さ評価に明らかな特徴差はなかった．**結論**：男性乳癌と女性化乳房症の鑑別診断には超音波による形態評価に加え，硬さ評価が有用である．

Is adding vascularity and elastography adjunct to B-mode ultrasound useful in distinguishing male breast carcinoma and gynecomastia?

Nonoko WAKAKI, Ako ITOH, SJSUM, Lisa SUYAMA, FJSUM, Hideyuki MISHIMA

Abstract

Purpose: Male breast cancer（MBC）is a relatively rare disease. It is important to distinguish it from gynecomastia, which is close in terms of the predominant age and symptoms. The aim of this study was to investigate ultrasound findings with color Doppler imaging and elastography of MBC and gynecomastia. **Subjects and Methods**: Of male patients with breast symptoms who had undergone ultrasound evaluation between January 2000 and October 2019, the subjects of the study were 92 patients who were diagnosed with MBC or gynecomastia. The morphology was classified into nodular, dendritic, and diffuse glandular; the vascularity on color Doppler imaging was visually classified into four grades; and the elasticity evaluation was divided into five grades using the Tsukuba elasticity score. We compared whether there was a significant difference in color Doppler imaging and elastography between MBC and gynecomastia for each morphology. **Results and Discussion**: There were six MBCs and 86 gynecomastias. All MBCs appeared as nodular. Gynecomastia was nodular in 28 cases（32. 6%）, dendritic in 17 cases（19. 8%）, and diffuse glandular in 41 cases（47. 7%）. On color Doppler imaging, the evaluation was hypervascular or vascular in 5 / 6 cases（83. 3%）of MBC and 21 / 34 cases（61. 8%）of gynecomastia. There was no significant difference between the two groups（P = 0. 399）. As for elastography evaluation, MBC scored 5 in 3 / 5 cases（60%）. For gynecomastia, 46 / 49 patients（93. 9%）scored 1 and 2, showing a significant difference between the two groups（P < 0. 005）. Nodular and dendritic gynecomastia was found in 10 / 15 cases（66. 7%）, and 8 / 11 cases（72. 7%）had high blood flow, but 35 / 41 diffuse glandular cases（85. 4%）were diagnosed without using vascularity and elastography. The hardness evaluation was not related to morphological characteristics. **Conclusion**: Combining B-mode ultrasound with elastography is useful for distinguishing MBC from gynecomastia.

Keywords

male breast cancer, gynecomastia, breast ultrasound, color Doppler imaging, elastography

日立総合病院乳腺甲状腺外科

Department of Breast and Thyroid Surgery, Hitachi, Ltd., Hitachi General Hospital, 2−1−1 Jonann-cho Hitachi, Ibaraki 317−0077, Japan

Corresponding Author: Nonoko WAKAKI（zozouo.uon.624@gmail.com）

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