

# Adenosis Tumor of the Breast : A Case Report<sup>1</sup>

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Adenosis tumor is a rare tumor of the breast and primarily consists of adenosis. Authors report a case of surgically proved adenosis tumor in a 31-year-old woman. Mammogram showed a lobulated, well-circumscribed mass with several surrounding radiolucent halos. In the center of the mass several linear radiolucent densities were seen with the appearance of a conglomerated well-circumscribed mass such as fibroadenoma. These linear radiolucent densities were consistent with the fat between the fibrous sclerosis in pathologic specimen. Ultrasonogram showed a well-circumscribed mass with homogeneous low echogenicity, partial posterior enhancement, and bilateral acoustic shadowings.

**Index Words :** Breast radiography  
Breast neoplasms, diagnosis  
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Sclerosing adenosis is a frequent microscopic finding in excised breast tissue, but only rarely forms a palpable tumor. Such tumors have been called a palpable form of sclerosing adenosis(1), tumor forming sclerosing adenosis(2), tumor adenosis or adenosis tumor(3) which is infrequently described in the literature(1-5). Moreover, to our knowledge, there has been few reports of adenosis tumor in radiological literature (4). We report a mammographic and sonographic findings in a patient with a surgically proved adenosis tumor of the breast.

## CASE REPORT

A 31-year-old woman had a mass in the right breast for 10 years. Physical examination showed a 3cm-sized, movable, nontender, and palpable mass in the lower central portion. Mammograms showed a lobulated, well-circumscribed mass with several surrounding radiolucent halos(Fig. 1a). Ultrasonograms of the breast showed a lobulated, well-circumscribed mass of low echogenicity. Multiple bilateral acoustic shadowings with different intensity of posterior acoustic

enhancement were seen. Echogenic lines were also seen at the center of the mass. Therefore, radiological impression was a tubular adenoma or atypical form of conglomerated fibroadenoma(Fig. 1b).

The mass in the breast was excised, and pathologic examination of the mass showed a yellowish-white lobulated mass which consisted of multiple adenosis and showed a characteristic patchy arrangement(Fig. 1c). Microscopic examination showed a closely packed round or compressed glands in a different growth patterns, tubular adenosis, and apocrine adenosis which were frequently seen in adenosis tumor(Fig. 1d).

## DISCUSSION

Adenosis tumor is defined as a clinically and/or macroscopically recognizable breast lesion that, histologically, primarily consists of adenosis. It is usually a solitary tumor, but on rare occasions it may be multiple(5) or bilateral(6). Most of the patients are between 20 and 50 years of age(7). The symptoms and signs are nearly always of a breast mass(7). Just as pathologic reports on adenosis tumor is rare. Very few radiological report of adenosis tumor has been published to our knowledge(4).

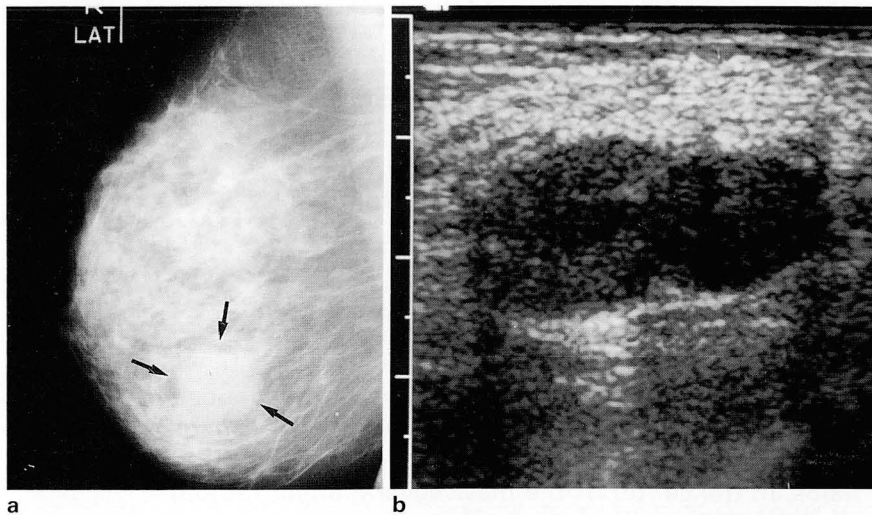
Adenosis tumors are generally small. Haagensen et al(6) found a mean diameter of 2.4 cm and Heller & Flemming(5) found a size varying from 0.5 to 5 cm. Macroscopically, the lesions are characteristically

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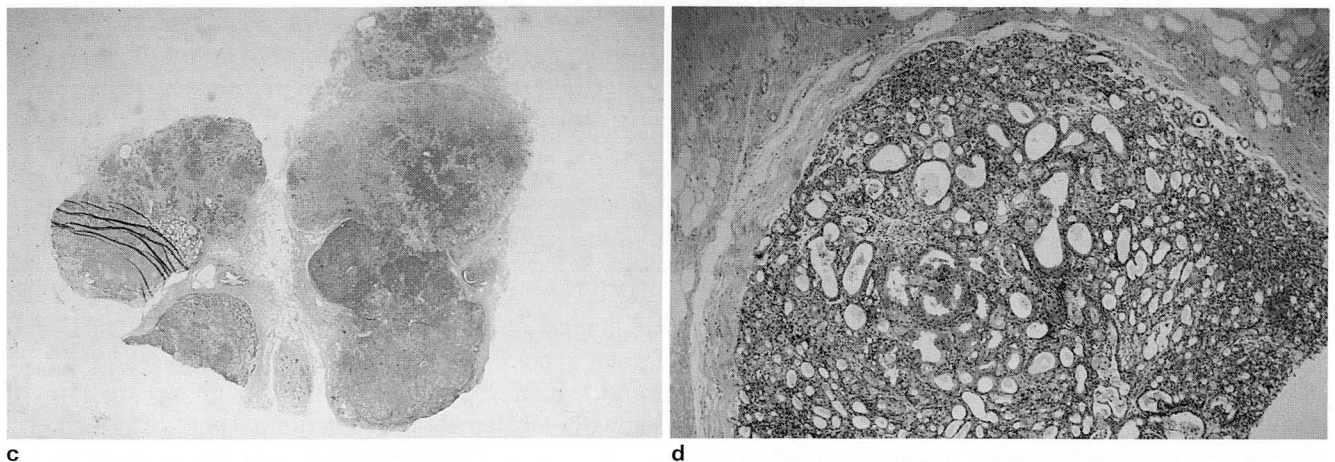
**Fig. 1.** Adenosis tumor of breast in a 31-year-old woman.

a. Mammogram shows a lobulated, well-circumscribed mass with several surrounding radiolucent halos(arrows).

b. Ultrasonogram shows a lobulated, well-circumscribed mass of low echogenicity with posterior acoustic enhancement and multiple bilateral shadowings.

c. Photomicrograph of specimen shows a yellowish-white lobulated mass which consists of multiple adenosis and shows a characteristic patchy arrangement( $\times 1$ ).

d. Photomicrograph of another site of specimen shows tubular adenosis, apocrine adenosis, and closely packed round or compressed glands in different growth patterns (H & E,  $\times 100$ ).



firm, grayish or grayish-white and poorly defined, although they can be well circumscribed(7). Microscopically, adenosis tumors are often suspected to be, or are misinterpreted as malignant lesions because of their irregular infiltrative border and great glandularity and cellularity. However, in our case, the appearance was a well circumscribed mass in pathologic and radiologic examinations. A prominent pathological feature in all adenosis tumors is the mixture of different growth patterns which is not found in carcinomas(8). Another often found characteristic is a patchy arrangement of the glands seen at low power field(3, 6). This is in contrast to the stellate configuration often seen in carcinoma, particularly tubular carcinoma(9, 10). Another characteristic microscopic finding that separates adenosis tumors from carcinoma is the presence of microcysts(5). Our case also showed a characteristic patchy arrangement and different growth patterns pathologically.

Tubular adenoma is known to be similar to adenosis tumor pathologically and radiologically. Nielsen reported seven adenosis tumors which were well-circumscribed and showed some similarity to tubular adenoma(7). Although, some pathologic findings such

as multiple microcysts, frequent apocrine metaplasia, elastosis, and microcalcifications in adenosis tumors are not shared by tubular adenomas, there do not contribute radiologically and differential diagnosis remains difficult.

In our case, mammogram showed a lobulated, well-circumscribed mass with several surrounding radiolucent halos. In the center of the mass several linear radiolucent densities were seen, which lead to false impression of conglomerate well-circumscribed mass such as fibroadenoma. These linear radiolucent densities were consistent with the fat between the fibrous sclerosis in pathological specimen. Ultrasonogram showed a well-circumscribed mass with low echogenicity, posterior enhancement, and bilateral acoustic shadowings. Therefore, it is difficult to differentiate adenosis tumor from tubular adenoma or conglomerate fibroadenoma. Because of the rarity of the reported adenosis tumor, a collection of more cases is required to define the radiological findings.

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## 유방의 선증종양: 1예 보고<sup>1</sup>

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선증종양(adenosis tumor)은 유방질환에 있어서 매우 드문 종양으로 주로 여러 개의 선증(adenosis)으로 구성되어 있다. 저자들은 31세 여자환자에서 수술로 확진된 선증종양에서 유방촬영소견 및 유방초음파소견을 보고한다. 유방촬영에서 선증종양은 분엽상의 경계가 뚜렷한 종괴로 보였으며 주위에 저음영의 둥근띠모양이 보였고 이 종괴의 중심부에서 여러 개의 저음영의 선들이 보였다. 이러한 저음영의 선들은 병리조직에서 섬유성경화(fibrous sclerosis)사이의 지방조직에 해당되었다. 유방초음파에서도 선증종양은 저에코, 부분적인 후면에코증강, 그리고 양측면에코소실을 가지는 경계가 명확한 종괴로 보였다.

