Superficial Angiomyxoma of the Scrotum

Hyun Jin Jung, Duk Yoon Kim

Department of Urology, Catholic University of Daegu School of Medicine, Daegu, Korea

Superficial angiomyxoma is a rare benign neoplasm characterized by a conglomerate of multiple, moderately to sparsely cellular angiomyxoid nodules with scattered small to medium-sized blood vessels. It first reported by Allen et al., in 1988 and it is usually located on trunk, head and neck or lower extremity. Scrotal superficial angiomyxoma is extremely rare. We report a case of superficial angiomyxoma on the scrotum of a 69-year-old man.

Keywords: Myxoma; Scrotum

CASE REPORT

A 69-year-old man was referred to us due to a growing cutaneous tumor on the right scrotum. The tumor had grown gradually for a year without any pain, Clinical examination revealed a soft, flesh-colored tumor, measuring 3×2.8×2.2 cm, on the right scrotum (Fig. 1). The mass had a smooth surface and multilobulated nodular feature with some dilated blood vessels on the surface. The tumor was completely excised under spinal anesthesia.

Histopathologically, the specimen showed proliferation of thin-walled vascular channels and a sparsely cellular proliferation of satellite and spindle-shaped cells deposited in an abundant myxoid matrix (Fig. 2). Immunohistochemistry showed that they were negative for progesterone receptor, α-smooth muscle actin, desmin, and S-100 protein, but positive for CD-31 and vimentin (Fig. 3). Clinical and histological findings led to the diagnosis of superficial angiomyxoma. The margins of the sections were positive for tumor cells however, no recurrence was observed during two years’ follow-up.
DISCUSSION

In 1988, Allen et al.\(^1\) reported cutaneous tumors comprising a benign myxomatous neoplasm characterized by moderately to sparsely cellular angiomyxoid nodules with scattered small to medium-sized blood vessels in 28 patients aged 4 to 78 years. Most of the tumors were soft, measuring 0.5 to 9 cm, and appeared only on the head, neck, trunk, or lower extremity. In 1999 Calonje et al.\(^3\) reported that clinicopathologic and immunohistochemical features in 39 cases of superficial angiomyxoma. The tumor was more common in men. The age of onset and size ranged from 0 to 82 years and 1 to 5 cm, respectively. Seventeen (43.6\%) of the tumors were located on the trunk, 14 (35.9\%) on the head and neck and 7 (17.9\%) on the lower limbs.

Only six cases of superficial angiomyxomas have been reported to arise on the scrotum.\(^2,4\) To the present authors’ knowledge, this is the first report of superficial angiomyxoma occurring on the scrotum in Korea. Clinical findings of previously reported cases and our case are summarized in Table 1.\(^2,4\)

Superficial angiomyxoma should be differentially diagnosed with aggressive angiomyxoma, cutaneous focal mucinosis or cutaneous myxoid cyst.

Aggressive angiomyxomas on scrotum have been reported in Korea.\(^5,6\) Aggressive angiomyxomas are usually infiltrative. In contrast, superficial angiomyxomas are generally larger than cutaneous focal mucinoses and cutaneous myxoid cysts, and are not infiltrative but well circumscribed. Cutaneous mucinosis and cutaneous myxoid cysts contain clefts and mucin pools, but few blood vessels. In contrast, superficial angiomyxomas show a scattered distribution of small to medium sized thin-walled blood vessels, however, the large caliber vessels seen in aggressive angiomyxomas are absent.

Based on prior studies, there is a possibility for local recurrence if tumors are incompletely excised.\(^3\) Eight of 39 (20.5\%) cases of tumors recurred locally. Three patients had one recurrence, three had two recurrences and one case recurred three times. In all cases with recurrence, the primary lesion had been incompletely excised. In the present case, we think the tumor was completely resected.
but surgical margin was positive. Therefore, it is recommended that due consideration is given to resection margin when exercising superficial angiomyxoma. Local recurrence of tumor will be closely monitored in the present case.

REFERENCES


Table 1. Superficial angiomyxoma of the scrotum: review of the literature

<table>
<thead>
<tr>
<th>Reference</th>
<th>Age (year)</th>
<th>Location</th>
<th>Size (cm)</th>
<th>Recurrence</th>
<th>Follow up periods (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fetsch et al.</td>
<td>55</td>
<td>Right scrotum</td>
<td>3.5</td>
<td>Follow up</td>
<td>loss</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>Scrotum</td>
<td>1.0</td>
<td>No</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Scrotum</td>
<td>6.0</td>
<td>Follow up</td>
<td>loss</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Scrotum</td>
<td>&lt;6.0</td>
<td>No</td>
<td>7.5</td>
</tr>
<tr>
<td>Calonje et al.</td>
<td>45</td>
<td>Scrotum</td>
<td>1.7</td>
<td>3 recurrence</td>
<td>1, 3, and 5</td>
</tr>
<tr>
<td>Nakamura and Tokura</td>
<td>4</td>
<td>Right scrotum</td>
<td>1.2×0.8</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Current case</td>
<td>69</td>
<td>Right scrotum</td>
<td>3×2.8×2.2</td>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

Fig. 3. Immunohistochemical analyses (×200) positive for CD-31 (A) and positive for vimentin (B).