รายงานผู้ป่วย

Superficial pleomorphic liposarcoma: a case report.

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Kleebkaow P, Shuangshoti S, Punyavoravut V, Lutigaviboon V. Superficial pleomorphic liposarcoma : a case report. Chula Med J 1997 Sep;41(9): 673-8

A 42-year-old woman had 2 small subcutaneous masses for one year. One was at the anterior aspect of the chest wall, and the other was on the back. Both were on the right side. Grossly, the tumor of the chest wall mimicked a benign lesion because of its circumscribed border and homogeneous cut surface. However, it was verified as pleomorphic liposarcoma by detection of lipoblasts in microscopic and ultrastructural studies. The other lesion of the back was a lipoma.

Key word : *Pleomorphic liposarcoma.*

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Received for publication. July 7,1997.

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พิไลวรรณ กลีบแก้ว, ชนพ ช่วงโชติ, วรนุช ปัญญาวรวุฒิ, วรรณี ลัฐิกาวิบูลย์. มะเร็งของเนื้อเยื่อไขมัน ชนิดพลีโอมอร์ฟิก ที่เกิดในตำแหน่งตื้น: รายงานผู้ป่วย. จุฬาลงกรณ์เวชสาร 2540 ก.ย;41(9):673-8

ผู้ป่วยหญิงไทย อายุ 42 ปี คลำได้ก้อนที่ผนังทรวงอกด้านหน้า และหลังด้านขวามา 1 ปี เมื่อตรวจดูด้วยตาเปล่า ก้อนที่ผนังทรวงอกมีขนาดเล็ก ขอบเขตชัดเจน หน้าตัดสีขาวเหลือง ซึ่งน่าจะเป็นเนื้องอกที่ไม่ร้ายแรง การตรวจทางจุลพยาธิวิทยาพบลักษณะที่เข้าได้กับมะเร็งของเนื้อเยื่อไขมันชนิดพลีโอมอร์ฟิก การย้อมพิเศษ และการศึกษาด้วยจุลทรรศน์อิเลคตรอนพบเซลล์ไขมันตัวอ่อน ซึ่งเป็นลักษณะที่สำคัญของมะเร็งชนิดนี้ ผลการตรวจทางพยาธิวิทยาของก้อนที่หลังพบเป็นเนื้องอกของเนื้อเยื่อไขมันที่ไม่ร้ายแรง

Liposarcoma, the most common adult soft tissue sarcoma, is thought to originate from primitive mesenchyme.[1] However, it rarely arises in either subcutaneous tissue or in pre-existing lipoma.[2] In Thailand, only one case of gigantiform retropesitoneal liposarcoma was recorded to our knowledge.[3] The purpose of this communication is to report a superficial pleomorphic liposarcoma which shows clinical and macroscopic features to resembled a lipoma.

Case report

A 42-year-old woman was presented with 2 subcutaneous masses. One was located on the anterior aspect of the right upper chest wall. The other was on the right side of the back. Physical examination revealed movable lumps of 2.5x2x2 cm and 4x3x3 cm, respectively. The chest mass was excised and submitted for pathologic examination. The clinical impression was a lipoma.

Grossly, the encapsulated mass showed a homogeneous and yellow cut surface without foci of hemorrhage and necrosis (Fig 1). Fragments of the lesion were fixed in 10% formalin, embedded in paraffin, and stained with hematoxylin and eosin (H & E). A frozen section with Oil-red-O stain was also done. Sections of the paraffin-embedded tissue were also processed by peroxidase-antiperoxidase (PAP) indirect immunohistochemical methods using antibodies to alpha-1-antitrypsin, CD68, lysozyme, and desmin. Furthermore, a portion of the specimen was washed and refixed in buffered 2% glutaraldehyde solution, embedded in epoxy resin, and prepared for electron microscopic study by standard procedure.

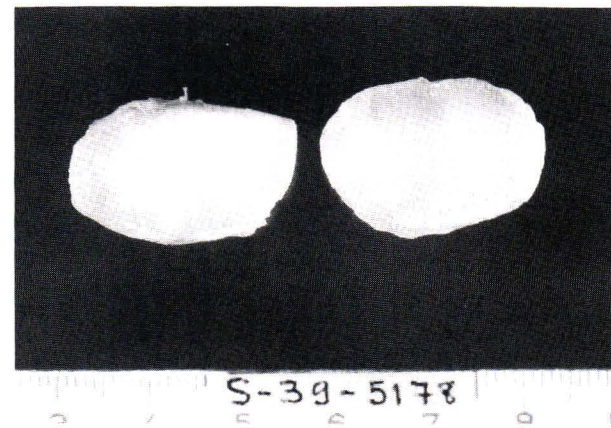

Figure 1. Photograph showing an encapsulated yellow mass with gelatinous cut surface.

Microscopically, the lesion was composed of pleomorphic spindle-shaped tumor cells embedded in a loose fibrous stroma. Some giant tumor cells were noted. The univacuolar and multivacuolar cells interpreted as lipoblasts shown in figure 2 as were few mitotic figures. The Oil-red-O stain disclosed intracellular lipids in the tumor cells (Fig 3). An immunohistochemical study was negative for alpha-1-antitrypsin, CD68, lysozyme, and desmin. Ultrastructurally, lipoblasts possessing multiple small nonmembrane-bound lipid droplets of variable sizes[4] were identified (Fig 4).

The pathological diagnosis was pleomorphic liposarcoma. The patient underwent a wide excision of the previously extirpated site at the right upper chest wall. No residual tumor was found in the wound. A 4-month follow-up study showed no recurrence of the lesion in the chest wall. The mass removed from the back was a lipoma.

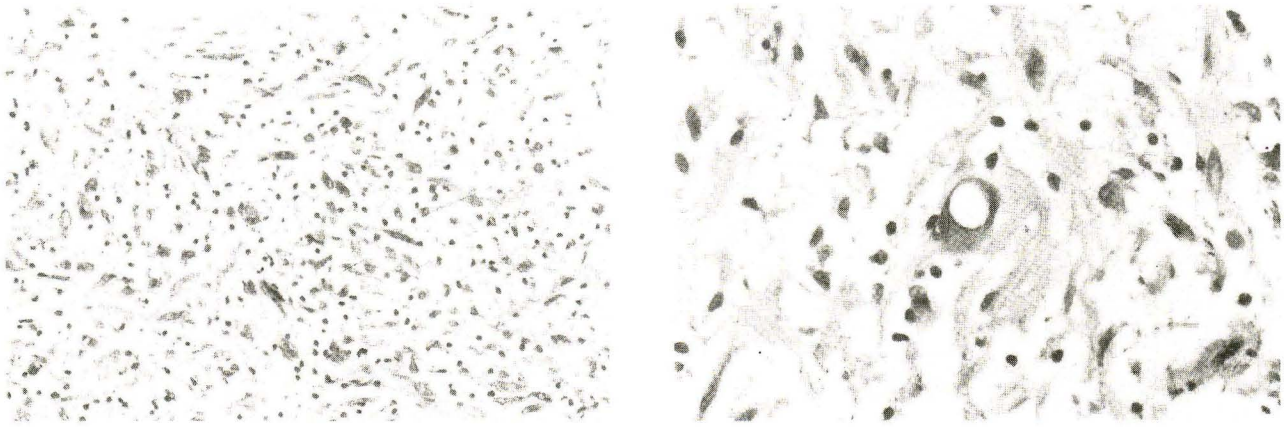

Figure 2. A. Photomicrograph showing pleomorphic tumor cells in loose stroma. (H & E x 100).
B. The univacuolar lipoblast with hyperchromatic and scalloped nuclei is depicted. (H & E x 400)

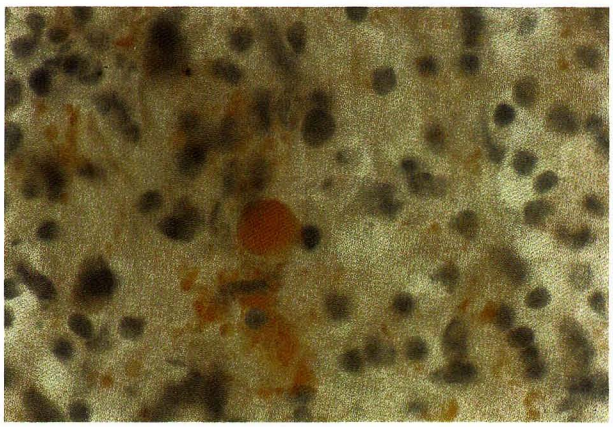

Figure 3. Photomicrograph showing intracellular lipid in some lipoblasts (Oil-red O x 600).

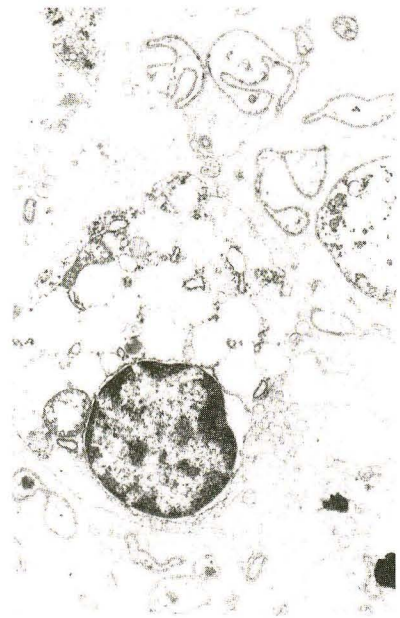

Figure 4. Electron micrograph showing lipoblasts with multiple small non-membrane-bound lipid (x 6000).

Discussion

Liposarcoma usually occurs in deep soft tissue such as in the muscular layers and deep fascia of the thigh, the inguinal region, and the retroperitoneum.[1,5] Most patients present with an insidious growing mass of ill-defined border.[1] However, subcutaneous liposarcomas arising in the thigh and vulva have been reported.[6,7]

Our patient's lesion is an example of subcutaneous pleomorphic liposarcoma. Grossly, the lesion appeared to be similar to some benign tumors, such as lipoma and neurofibroma, because of its circumscribed outline and superficial location. Microscopically, several differential diagnoses could be considered. These included malignant fibrous histiocytoma (MFH), pleomorphic rhabdomyosarcoma, and pleomorphic lipoma.[8,9]

Giant tumor cells with acidophilic cytoplasm make pleomorphic liposarcoma superficially resemble MFH and pleomorphic rhabdomyosarcoma.[8] However, the absence of immunoreactivity to alpha-1-antitrypsin, lysozyme, CD68, and the detection of lipoblasts are evidence against MFH.[1,10] Rhabdomyosarcoma is excluded by the immunohistochemical negative reaction to desmin. Moreover, there is no supporting ultrastructural feature and this malignant tumor is uncommon in adulthood.[1]

Pleomorphic lipoma may be confused with liposarcoma because of marked pleomorphism of the tumor cells. Furthermore, it is usually well-circumscribed and superficially located, as in our instance.[1] The microscopic and ultrastructural recognition of lipoblasts, as well as the lack of floret-like giant cells, and transformation zone from mature adipocytes to pleomorphic cells are the important findings to exclude the possibility of pleomorphic lipoma.

Generally, superficial liposarcomas tend to be small and easily accessible; hence are more amenable to aggressive surgical therapy. Recurrence is less common than in deep-seated liposarcomas.[1] The patient's prognosis is usually satisfactory, especially when necrosis is absent.[11] Metastasis is less frequent in comparison to other pleomorphic mesenchymal tumors.[1]

In conclusion, we report here a small subcutaneous pleomorphic liposarcoma of the chest wall with the clinical and macroscopic features resembling a benign lesion. For this reason, any subcutaneous mass detected in a patient, if possible, should be surgically removed and submitted for pathological examination. The presence of lipoblasts is the diagnostic hallmark of this entity. Early detection will result in an appropriate treatment for the patient with all likelihood of a good outcome.

Acknowledgment

The authors would like to thank Professor. Dr. Samruay Shuangshoti for reviewing the manuscript.

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