

Subject ID: LM00004  
Pathology Report Date: 3/6/96  
Pathology Report Summary

**SPECIMEN:**

Uterus, cervix, bilateral fallopian tubes and ovaries

**GROSS DESCRIPTION:**

Labeled as uterus, cervix, bilateral tubes and ovaries on both the requisition and container. Specimen consists of a 555 gram 16.0 x 13.0 x 11.5 cm. uterus, cervix and adnexa. The uterine serosa is smooth and free of adhesions. The cervix is 5x 4 cm. The exocervical mucosa is grossly unremarkable. The cervical os is patent. The squamo-columnar junction is well-defined. The endocervical canal is patent. The endometrial canal is compressed and distorted by an intramural leiomyoma within the anterior wall. The leiomyoma is well circumscribed and is 7.0 x 7.0 cm. The cut surface is soft necrotic appearing tan yellow. The center is markedly softened and necrotic; however the periphery appears more firm. Hemorrhage is not grossly identified within the leiomyoma. The endometrium is red tan and up to 0.1 cm thick. Two additional separate intramural leiomyomata which are 1 cm in greatest dimension are also identified. They are whorled tan and free of hemorrhage and necrosis. The myometrium is up to 3 cm thick. It is firm tan. The fimbriated right fallopian tube is 8 x 0.8 cm. The right ovary is 3x 1.5 x 1.1 cm. On section, it is grossly unremarkable. The fimbriated left fallopian tube is 7.5 x 0.6 cm. The left ovary is 4.5 x 2 x 1.5 cm. it contains a collapsed 2.2 cm hemorrhagic cyst.

**MICROSCOPIC DESCRIPTION:**

The large intramural smooth muscle tumor shows a high grade infiltrating neoplasm. Although it has a varied appearance from area to area, in many areas the lesion is extremely poorly differentiated. There are cells with spindle-shaped nuclei and severe pleomorphism and marked hyperchromatism. Numerous pleomorphic tumor giant cells are noted. There also are areas of necrosis. Towards the periphery the tumor is somewhat better differentiated, however one still sees pleomorphic tumor giant cells and brisk mitotic activity. The lesion does not have a circumscribed appearance and infiltrating tongues of neoplasm are seen infiltrating the normal myometrium. No definite vascular invasion is noted. Sections of myometrium elsewhere show adenomyosis. The endometrium shows simple hyperplasia. Sections of cervix show chronic inflammation with squamous metaplasia. Sections of ovary and fallopian tubes are unremarkable.

**FINAL DIAGNOSIS:**

Uterus: leiomyosarcoma, high grade; simple hyperplasia of the endometrium; adenomyosis; chronic cervicitis with squamous metaplasia; leiomyomas.

Comment: According to the outside path report, the uterine tumor measured 7.0 cm in diameter. In focal areas the tumor is a leiomyoma, but there are several areas with marked atypia, extensive necrosis and more than 15 mitotic figures per ten high power fields. Some of the mitoses are atypical. The margins of the lesion are seen in only two slides and they are predominantly well demarcated, however, there is focal infiltration of the myometrium.

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#### GROSS DESCRIPTION :

Received fresh are two lymph nodes, one of them 3.0 cm in greatest dimension and the other 1.7 cm in greatest dimension. They have a yellowish gray cut surface, Touch preps and frozen section is performed with a diagnosis of "benign" rendered (FSA). The remainder of the nodal tissue is submitted in two blocks.

Received fresh is a crescent-shaped portion of pink-tan lung tissue stapled along one surface. Along the stapled side is 10 cm. It is 3 cm in depth and 1.5 cm in thickness. The pleural surface is smooth and glistening. There is a subpleural nodule 1.2 cm, which has a soft granular appearance. A frozen section is performed with a diagnosis of "malignant tumor, await permanent to decide tissue type." In addition, the patient's previous uterine leiomyosarcoma is requested for review and comparison. The stapled margin is grossly negative. The remainder of the nodule is submitted in block B1, Immunoperoxidase stains for actin are ordered. Block B2 is the stapled margin. The remainder of the lung tissue is unremarkable.

#### MICROSCOPIC DESCRIPTION:

Solitary lung nodule shows interlacing fascicles of spindle and focally epithelioid cells with nuclear pleomorphism, frequent mitoses, and an eosinophilic fibrillar cytoplasm which is not decorated with antisera to actin. Other immunoperoxidase stains are pending.

#### FINAL DIAGNOSIS:

Lymph nodes, posterior hilar, excisional biopsies (2):

No evidence of metastasis (0/2)

Patchy epithelioid granulomata without evidence of necrosis.

Lung, peripheral segment of right lower lobe, excision:

Metastatic sarcoma

#### Addendum #1:

Special stains for AFB and fungi are negative on the lymph node showing granulomatous inflammation.

The malignant cells are positive for vimentin, negative AE1/AE3 and EMA. They show no reactivity for CD34 (positive internal control). In summary this immunohistochemistry is certainly consistent with the microscopic diagnosis of sarcoma.

Addendum #2:

DNA ploidy analysis was performed using flow cytometry. There is a tetraploid population comprising 48% of the cells. The percentage of cells in the S-phase of the tetraploid peak is estimated to be 26%.

Review of the original uterine leiomyosarcoma has been completed. The current lung metastasis is consistent with this diagnosis. The original uterine leiomyosarcoma shows classic areas of leiomyosarcoma and less well differentiated areas. The lung lesion is histologically most similar to the more poorly differentiated areas.

Addendum #3:

Immunohistochemical stains were performed for estrogen and progesterone receptors. The estrogen receptor stain is weakly but distinctly positive. The progesterone receptor stain is weakly positive as well.

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Pathology Report Date: 1/23/02

Pathology Report Summary

**GROSS DESCRIPTION:**

- A. Left lower lobe nodule – one lung wedge resection, 12.0 x 2.5 x 2.2 cm with a 12.0 cm long stapled parenchymal margin. There is a well circumscribed nonencapsulated tumor, 2.0 x 1.5 x 1.8 cm, with tan-gray fleshy cut surface. The tumor is 0.4 cm from the parenchymal resection margin. The non-neoplastic lung parenchyma is pink with preserved preparation and no apparent lesion.
- B. Left upper lobe nodule – one lung wedge resection, 3.8 x 1.2 x 0.6 cm, with a 4.2 cm stapled parenchymal margin. A well circumscribed non-encapsulated nodule, 0.5 cm in greatest dimension, is present within the lung parenchyma, approximately 3.0 cm from the parenchymal resection margin. The nodule has a tan-white fleshy cut surface. The non-neoplastic lung parenchyma is unremarkable.

**DIAGNOSIS:**

- A. Left lower lobe nodule:  
Metastatic leiomyosarcoma  
Parenchymal resection margin free of tumor.
- B. Left upper lobe nodule:  
Metastatic leiomyosarcoma  
Parenchymal resection margin free of tumor.