

# Pulmonary Benign Metastasizing Leiomyoma From Uterine Leiomyoma A Decade After Hysterectomy

Shams Tasnim MD<sup>1</sup>, Nishant Sharma MD<sup>1</sup>, Pius Ochieng MD<sup>2</sup>,

<sup>1</sup> The Wright Center for Graduate Medical Education, <sup>2</sup> Geisinger Community Medical Center

## Introduction

Benign metastatic leiomyoma (BML) is a rare complication of uterine fibroids. We present a unique case of BML detected over a decade after hysterectomy.



Figure 1: Nodule in right lung base measuring 2.8 cm

## Case Presentation

48-year-old female (BMI 34.5), non-smoker with a remote history of uterine leiomyoma and hysterectomy was incidentally found to have multiple bilateral pulmonary nodules (largest 12 mm) on chest computed tomography (CT) imaging done 11 years after her hysterectomy. Subsequent surveillance chest CT 2 years later revealed 2 mm growth of the largest nodule. Positron emission tomography (PET) scan demonstrated indeterminate metabolic activity of the nodule, without other PET-avid lesions. Fine needle aspiration (FNA) of largest nodule revealed smooth muscle proliferation.

Further follow up chest-CT about 1.5 years later showed further 2 mm growth prompting repeat FNA that yielded similar results. Resection of the nodule revealed benign smooth muscle tumor positive for estrogen and progesterone receptors similar to histology of her uterine leiomyoma specimen, thus confirming diagnosis of benign metastasizing leiomyoma. Therapy with tamoxifen was suggested, but she opted for surveillance.

## Discussion

BML is a rare complication of uterine leiomyoma with a median presentation age of 46 years; lungs are the commonest site of metastasis. BML is usually diagnosed incidentally since it's usually asymptomatic.

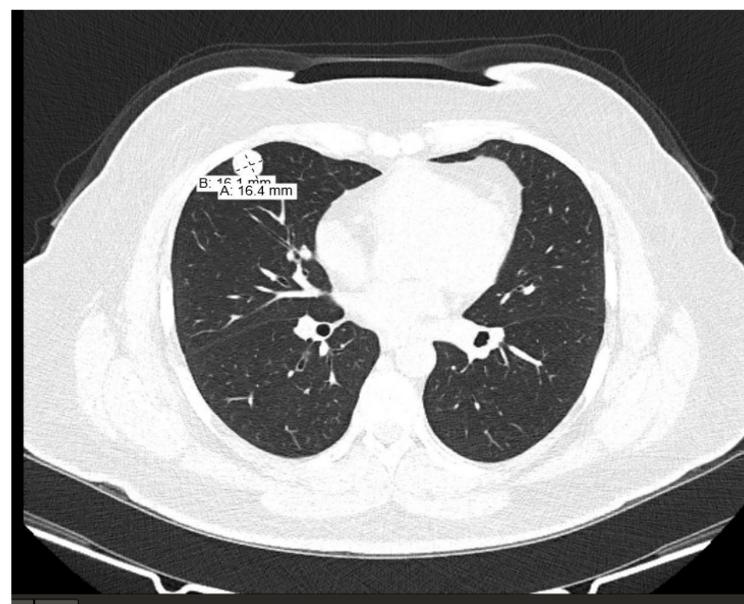


Figure 2: Right middle lobe pulmonary nodule

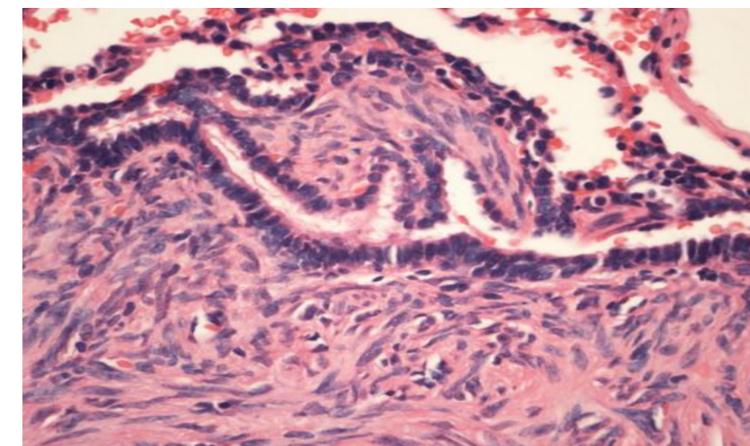


Figure 3: Rounded smooth bordered smooth muscle tumor lying within lung tissue

Our case was unique with lung nodule detected 11 years after hysterectomy. Given its rarity, the treatment of BML is not standardized. Treatment options include gonadotropin-releasing hormone agonists, estrogen-receptor modulators, and aromatase-inhibitors that may induce tumour regression. Menopausal hormonal changes may also halt growth of BML nodules. Surveillance off treatment was reasonable as our patient was close to menopause.

BML is rare and can occur years after hysterectomy.

## References

- Dai H, Guo S, Shen J, et al. Pulmonary benign metastasizing leiomyoma: A case report and review of the literature. *World J Clin Cases*. 2020 Jul 26;8(14):3082-3089.
- Wongsripuemtet J, Ruangchira-urai R, Stern E, et al. Benign metastasizing leiomyoma. *J Thorac Imaging*. 2012 Mar;27(2):W41-3. doi: 10.1097/RTI.0b013e318215cc26.