Gastrointestinal stromal tumor presenting as lung mass: A case report

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Gastrointestinal stromal tumors (GISTs) are rare neoplasms of the gastrointestinal tract commonly seen in middle-aged and elderly adults with the most common location in the stomach and small intestine. These tumors most frequently metastasize to the liver and peritoneum and it is relatively rare that the tumor invades the lung and the bones. GISTs outside the gastrointestinal tract appear to relapse more frequently. The treatment of unresectable GISTs is systemic treatment with tyrosine kinase inhibitors. We present a case of a 20-year-old Filipino male with a 2-week history of exertional dyspnea which on work up showed a left pulmonary mass consistent with a high grade gastrointestinal stromal tumor with no evidence of intra-abdominal GIST on work-up. Immunohistochemistry revealed spindle cells positive for CD 117, DOG-1, and CD 56, negative for CK, TTF-1, SMA, desmin, S-100, and CD34. He underwent attempted video-assisted thoracoscopic surgery (VATS), open thoracotomy, lung mass biopsy, tumor debulking and decortication and began treatment with oral imatinib mesylate (Gleevec) at a dose of 400mg/day but was refractory after 3 months of treatment. The patient had pulmonary infection and evidence of tumor progression at that time. He then underwent radiotherapy and a second line pazopanib 400mg/day was started. Partial response was achieved after two to three months. The patient is currently stable and with good functional capacity.

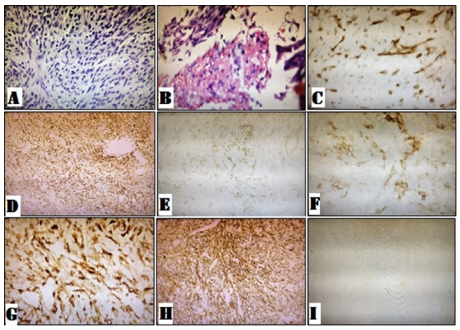

Figure. (A,B) The lung mass was composed of spindle cells and epithelioid cells, (C,D) positive CD 117, strong and diffuse, (E,F) positive DOG-1, (G,H) positive CD 56, (I) negative CD 34

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