Primary extra-gastrointestinal GIST of the prostate presented with spinal cord compression

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Abstract: Background: The gastrointestinal stromal tumors (GISTs) account for less than 1% of all malignancies, but they are usually originate from the wall of the GI tract. Primary extra-gastrointestinal GISTs are rarer. Case: A 74 year-old Chinese gentleman presented with obstructive urinary symptoms in early 2012. TURP was done and histopathology result revealed suggestive of GIST, spindle cell type with positive margins, also confirmed by further IHC [positivity for CD117, CD34, SMA and desmin, negative to S100, low Ki67 (1%–2%)]. PET scan showed no other distant metastases. He refused prostatectomy and underwent radiotherapy to prostate in a private hospital. In February 2013, he presented again with urinary symptoms and worsening renal function. PR examination showed a large mass in the prostate region protruding into rectum. Rectal endoscopy showed a mass compressing from the outside with smooth mucosa over mass and transrectal biopsy was taken. PSA levels were always less than 0.5 ng/mL throughout monitoring. He developed spinal cord compression while awaiting the biopsy result. MRI revealed spinal cord compression due to a large left paravertebral mass infiltrating into T7 – T9, adjacent aorta, pleura and lung. He was treated with radiotherapy to spines 20 Gy/5# and Imatinib 400 mg/day was started in April 2013. Since then he gained partial response and was ambulating well with ECOG 0–1. However, in March 2017, he developed disease recurrence in the pelvis, para-aortic lymph nodes, lung and bones. The biopsy from the pelvis at this time was also the same as previous GIST. His ECOG was poor due to ascites and pleural effusion and partly due to comorbid bronchiectasis. Imatinib was interrupted on some occasions and finally he passed away in October 2017. Conclusions: GISTs very rarely originate in extra-gastrointestinal organs like prostate, and metastasize to bones. The histologic and immunohistochemical characteristics are same and they also respond well to Imatinib. In this patient, the time to progression is 48 months, he recovered completely from spinal cord compression and survived for more than four years despite metastatic disease.

Keywords: case report; gastrointestinal stromal tumors; spinal cord compression


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