

## Clinical Image

# Excessive $\beta$ -Human Chorionic Gonadotropin Elevation in a Patient with Inguinoscrotal Liposarcoma

Froehner M<sup>1\*</sup>, Zöphel K<sup>2</sup>, Jahn S<sup>3</sup>, Laniado M<sup>4</sup>, Wirth MP<sup>1</sup> and Zastrow S<sup>1</sup>

<sup>1</sup>Departments of Urology, Technische Universität Dresden, Fetscherstrasse, Germany

<sup>2</sup>Departments of Nuclear Medicine, Technische Universität Dresden, Fetscherstrasse, Germany

<sup>3</sup>Departments of Pathology, Technische Universität Dresden, Fetscherstrasse, Germany

<sup>4</sup>Departments of Radiologic Diagnostics, Technische Universität Dresden, Fetscherstrasse, Germany

\*Corresponding author: Michael Froehner, Department of Urology, University Hospital "Carl Gustav Carus" Technische Universität Dresden, Germany

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## Keywords

Sarcoma; Liposarcoma; Leiomyosarcoma; Inguinoscrotal;  $\beta$ -Human chorionic gonadotropin; Positron emission tomography

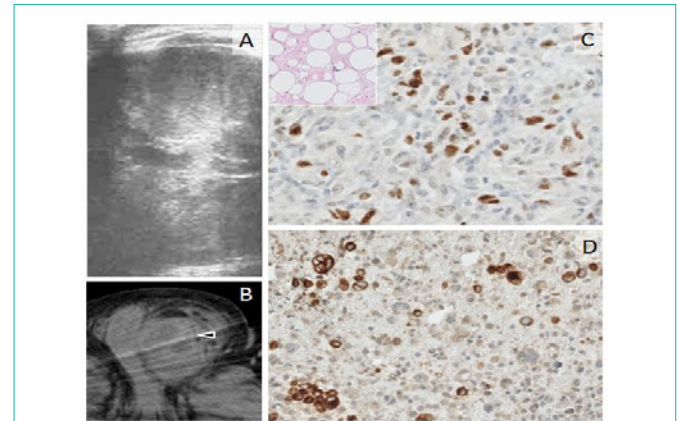
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A 77-year old patient presented with a 25 x 10 cm left-sided scrotal mass after inguinal exploration for suspected hernia (Figure 1A, 1B). Abdominal and thoracic CT scan did not show metastatic spread (Figure 2A).  $\beta$ -human chorionic gonadotropin ( $\beta$ -HCG) was 4003U/l (normal: <2.5), other markers were within normal range. Radical orchiectomy and hemiscrotectomy were performed revealing dedifferentiated liposarcoma with leiomyosarcomatous elements and  $\beta$ -HCG expression (Figure 1C, 1D). After transient decrease to 3500U/l  $\beta$ -HCG rose to >5000U/l. <sup>18</sup>F-fluoro-desoxyglucose positron emission tomography/CT revealed wide-spread metastases (Figure 2B) and the patient died 10 weeks after initial diagnosis.

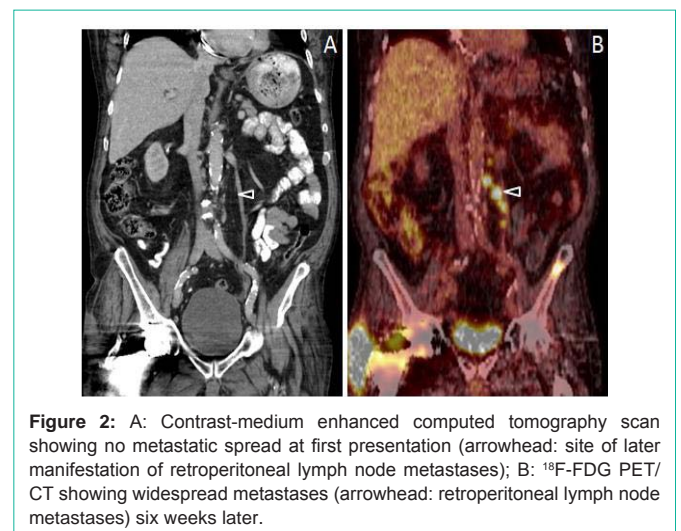
Even in the presence of metastases, non-trophoblastic tumors are rarely associated with elevated  $\beta$ -HCG levels [1]. Metastatic retroperitoneal dedifferentiated liposarcoma has, however, been found associated with a very high  $\beta$ -HCG level (18.430U/l [2]). The current case illustrates that inguinoscrotal sarcoma may be associated with excessively elevated  $\beta$ -HCG levels at an apparently localized stage.

## References

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**Figure 1:** Primary tumor. A: Ultrasound image; B: Contrast medium-enhanced computed tomography image (arrowhead: tumor); C: Immunohistochemical staining for MDM2 (original magnification x400), inset: well differentiated area of liposarcoma; D: immunohistochemical staining for  $\beta$ -HCG (original magnification x100). MDM2 fluorescence in situ hybridization revealed high level amplification in 100% of the tumor cells confirming the diagnosis of dedifferentiated liposarcoma.



**Figure 2:** A: Contrast-medium enhanced computed tomography scan showing no metastatic spread at first presentation (arrowhead: site of later manifestation of retroperitoneal lymph node metastases); B: <sup>18</sup>F-FDG PET/CT showing widespread metastases (arrowhead: retroperitoneal lymph node metastases) six weeks later.