

Patient ID:	650818	Patient Name:	Baby Shaik Shifa Maryam
Age:	9 Months	Sex:	F
Ref. Physician:	Dr Sirisha Rani	Modality:	PT
Study Date:	26-Jul-2023	Study:	PET CT Paediatrics

### **Whole Body PET-CT Scan**

***Clinical Diagnosis:*** Complaining of swelling over the back – 20 days. MRI: Large pre/paravertebral mass at D7-L3 vertebral levels with intraspinal extension and cord compression, involving right paraspinal muscles, ? ribs involvement, left supraclavicular node -? Ganglioneuoblastoma vs Multicentric neuroblastoma. PET/CT for metabolic characterisation and evaluation of disease extent.

***Technique:*** Whole body PET images were acquired from vertex to toes using a dedicated PET/CT scanner ~ 100 minutes after intravenous administration of ~ 1.5 mCi of 18F-FDG. Reported blood sugar level at the time of administration was within acceptable limits. Data was reconstructed with CT based attenuation correction in to axial, sagittal and coronal PET sections and interpreted after fusion with **contrast** enhanced CT images. FDG uptake is semi quantitatively assessed as SUVmax.

#### ***Findings:***

#### **PRIMARY SITE:**

- Areas of mild to moderate FDG uptake (SUVmax 6.0) is noted in a large heterogeneously enhancing lobulated pre / bilateral para vertebral soft tissue attenuation mass at the level of D7-L3 vertebrae (Right > Left; measuring ~ 7.9 x 4.8 x 8.5 cm); showing areas of calcification with intra-spinal extension along the right side and near complete obliteration of the bony spinal canal; showing indistinct fat planes with adjoining right paraspinal muscles causing mild contour bulge; partially encasing few right lower ribs and descending thoracic aorta.

#### **NODAL SITES:**

- Increased FDG uptake is noted in the following lymph nodes:
  - a. Right axillary node (~ 10 x 7 mm; SUVmax 1.4)
  - b. Enlarged left lower jugular / supraclavicular nodal lesion (~2.0 x 1.3 cm; SUVmax 2.2)
  - c. Few enlarged retrocaval nodes (~1.3 x 0.8 cm)
- No abnormal FDG avid / enlarged lymph nodes are noted in the rest of the regions.

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**DISTANT SITES:**

**BRAIN:**

- Brain parenchyma appears normal in attenuation.
- No supra / infratentorial focal / diffuse lesion is noted.
- Physiological FDG uptake is noted in the entire brain parenchyma.

**HEAD & NECK:**

- The upper aero-digestive tract and PNS appears normal.
- Thyroid appears normal with physiological FDG uptake.
- No abnormal FDG avid / enlarged lymph nodes are noted in cervical and right supraclavicular regions.

**CHEST:**

- Bilateral lung parenchyma appears normal in attenuation.
- Heart and the great vessels appear normal.
- No pleural or pericardial effusion is noted.
- Physiological FDG uptake is noted in the thymus.

**ABDOMEN AND PELVIS:**

- Liver appears normal in size and attenuation with physiological FDG uptake.
- Spleen, pancreas, bilateral kidneys and adrenals appear normal in attenuation with physiological FDG uptake.
- Rest of the visceral structures appears normal in attenuation with physiological FDG uptake. No focal lesion detected.
- No ascites.

**BONES:**

- Visualized bones appear normal in attenuation and alignment.
- Faint diffuse FDG uptake is noted in the entire visualized bone marrow.

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### **IMPRESSION:**

- Areas of mild to moderate FDG avidity (SUVmax 6.0) in large heterogeneously enhancing lobulated pre / bilateral para vertebral soft tissue attenuation mass at the level of D7-L3 vertebrae showing areas of calcification (Right > Left; measuring ~ 7.9 x 4.8 x 8.5 cm); with intra-spinal extension along the right and near complete obliteration of the bony spinal canal; showing indistinct fat planes with adjoining right paraspinal muscles causing mild contour bulge; partially encasing few right lower ribs and descending thoracic aorta as described – metabolically active disease – *likely neoplastic primary site (Neuroblastoma)*.
- FDG avid right axillary, enlarged left supraclavicular and retrocaval lymph nodes as described –metabolically active *metastatic disease*.
- Faint diffuse FDG avidity in entire visualized bone marrow as described? *Reactive*.
- For clinical, histological correlation and follow up.



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(Please carry this report and CD during your next visit for comparison)

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