Head of Division: Prof. Lebenthal Yael, license number 29274

**Summary of medical visit**

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| **Unit:** Institute for Pediatric Endocrinology | **Head of Department:**Prof. Lebenthal Yael, license number 29274 | **Nurse in charge:**Laurian Irina |
| **Telephone:**03-6972513 | **Fax:**03-6974306 | **E-mail:**pend-clinic@tlvmc.gov.il |

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| Surname: **Ramalia** | Given name: **Muhamad** | ID: **433096344** |
| **Date of birth:** December 19, 2012 | **Age:** 6 years 10 months | **Telephone:**059 056-9555005 |
| **Gender:** male | **Funding agency:**No insurer | **Address:**Jericho |

**Visit data -** date: **October 31, 2019** time: **12:14** visit number: **37520506**

**Diagnosis**

* Medulloblastoma

**Diagnosis at visit**

* **OBSERVATION AND EVALUATION FOR SUSPECTED CONDITIONS NOT FOUND** (V71.9)
* **SHORT STATURE** (783.43)

**Reason for referral**

Endocrine follow-up in a child with medulloblastoma that includes radiation therapy.

**Chief complaint**

6 years and 10 months old, resident of Jericho, undergoes follow-up here in house at the Clinic for Hemato-oncology (Dr Dvir) due to high-risk metastatic medulloblastoma. Treated with increased-dose (39) craniospinal radiation + boost to the tumor region, and afterwards treatment according to St. Jude's protocol. A severe secondary vision impairment is present (arrived blind, with only minor improvement since).

Of note, last radiation therapy December 2017, last chemotherapy April 2018.

Treated previously with Clexane (enoxaparin sodium) until August 2018 due to a small thrombus observed at echocardiography. Now treated with Keppra (levetiracetam) 200 mg, twice per day. No seizures.

Of note, a VPS is present - first inserted in the West Bank in September 2017, underwent revision in October 2017 here in house.

Most recent MRI (September 2019) - subdural collections at circumference of both hemispheres - width is reduced. Brainstem shifted to the left and distortion of fourth ventricle. Enhanced solid process at CPA on the left, with no significant change in dimensions since previous examination. Enhanced nodular extra-medullar processes along the cord are now presenting. In particular, root enhancement around the cauda, slightly thickened, is observed, with no measurable mass, with no new masses. In summary: stable compared with previous examination, no involvement of hypothalamus or pituitary is seen.

Previous visit to our clinic a year ago - requested to undergo blood test for cortisol, prolactin, thyroid function (TSH, FT4), IGF-1 levels, calcium, phosphorus, kidney function. Referred now with current tests for follow-up.

Most recent endocrine lab (by axis) -

# Thyroid

August 2018 - TSH 12.3, FT4 0.88

October 2019 - TSH 0.5, FT4 1.12 ng/dl

# Cortisol

February 2018 - 33 µg/dl

October 2019 - 5.4 µg/dl (but taken in the afternoon)

# IGF-1

October 2019 - 31 ng/dl

**Medical background**

# Normal pregnancy, term birth, weight at birth 3,200 g, vaginal birth.

# Development - normal in every aspect.

# Growth - short stature now, mother describes normal height pre-diagnosis.

# Nutrition - selective eating, seems to consume all macronutrients, but in small doses.

# Sleeps - well, sleep hours normal for his age.

# Systemic review - no headaches, minimal vision, no excessive drinking or urination, nocturia once a night, normal energy, normal bowel movement.

**Familial background**

# Father (Haitham) - born 1980, healthy, works at a sausage factory, Palestinian, first shaving 17-18, measured height 175 cm

# Mother (Rimaz) - born 1985, healthy, Palestinian, first period age 14, measured height 155 cm

# Two brothers and one sister - all healthy, average height

**Regular medications**

KEPPRA SYR 100 mg / 1 ml PO 200 mg ml

May cause falls in adult patients, particularly when combined with other drugs

**Pain assessment**

Patient feels pain: no.

**Vitals**

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| Time and date | Age | Blood pressure | Pulse | Weight (kg) | Height (cm) | BMI | SDS weight | SDS height | BSA |
| 31.10.2019 12:25 | 6y10m | 97/67 | 89 | 18.7 | 109.5 | 15.7 | -1.519 | -2.162 | 0.75 |
| 26.12.2018 11:54 | 6 | 96/65 | 109 | 16.6 | 107 | 14.5 | -1.827 | -1.706 | 0.7 |
| 29.11.2018 11:26 | 5y11m | 88/48 | 108 |  |  |  |  |  |  |
| 28.11.2018 08:22 | 5y11m | 95/65 | 100 |  |  |  |  |  |  |
| 27.11.2018 17:06 | 5y11m | 100/59 | 123 |  |  |  |  |  |  |

**Physical examination**

 Head: no dysmorphism, nystagmus

 Neck: no goiter

 Heart and lungs: normal sounds

 Abdomen: soft abdomen, not swollen or sensitive

 Skin: normal

**Extended physical examination**

**Tanner scale**

Facial hair: -

 Axillary hair: 1

 Pubic hair: 1

**Clinical hyperandrogenism**

Pre-acne: -

**Males**

Penis: pre-pubertal

 Right testicle: 1.5

 Left testicle: 1.5

**Gynecomastia** right: 1 left: 1

**Visit summary**

6 years, 10 months old, resident of Jericho, follow-up here in house due to high-risk metastatic medulloblastoma. Of note, last radiation therapy December 2017, last chemotherapy April 2018. Follow-up at our clinic since one year for endocrine assessment due to space-occupying lesion and radiation to head and neck.

Assessment by axis:

# GH - seems to exhibit fluctuating percentiles, now in the category of short stature. Low IGF-1, therefore clonidine test for growth hormones needs to be performed.

# Gonadotropins - at this stage no evidence of early puberty.

# Prolactin - no current tests.

# Cortisol - current test performed at a suboptimal time (16:00), we will therefore request an ACTH test.

# Thyroid - current tests with marginal-low TSH and normal FT4, further follow-up.

Due to neck radiation we would like to assay for calcium, phosphorus and creatinine normal.

In summary, clinical and lab follow-up need to continue, including clonidine growth-hormone test and afterwards ACTH test, and at null time point measure thyroid function and prolactin.

Under consultation with Dr Eyal.

**Recommendations**

Recommendation: # Make appointment for clonidine growth-hormone test and ACTH test, and at null time point measure thyroid function and prolactin.

 # Further follow-up at our clinic upon next visit to our institution.

**Letter singed by: Dr Rozen Gil, license number 1125960 Signature: \_\_\_\_\_\_\_\_**