UNIVERSITÄTSKLINIKUM FREIBURG
Zentrum für Kinderheilkunde und Jugendmedizin•
Mathildenstr. 1 • 79106 Freiburg

UNIVERSITÄTS KLINIKUM FREIBURG

To the doctor in charge of further treatment

Centre of Paediatrics and Juvenile Medicine
Department II: Neuropaediatrics and Myopathy
Medical Director
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Our ref.: Haug-Kor/Hopp

Freiburg, 19 September 2005

Copies to:
Prof. Superti-Furga, By internal mail
Dr. Sass, By internal mail
Frau Prof. van Velthoven, Neurochirurgie
Mr. and Mrs. Al Yassin

S2543622.01F
Haya Al Yassin, born on 09 Jun 2003,
Robert-Koch-Str. 1, 79106 Freiburg

Dear Colleagues,

This is to give you our report on the above patient who was treated as an inpatient by us from 23 Sep 2005 until 27 Sep 2005.

Diagnosis: Non-progressive subdural hygromas and CSF malabsorption
Status following resection of an extensive cystic tumour of the right cerebellar hemisphere
Histology: pilocytic astrocytoma
Consecutively, massive obstructive hydrocephalus
Tumour resection performed on 09 Sep 2005
Residual neuropsychiatric functional disorders requiring rehabilitation, but with good trend towards improvement

Anamnesis:
The medical history was described in detail in our previous report. The young patient had become increasingly somnolent on 22 Sep 05 and 23 Sep 05, but could be woken up at any time and was then awake and adequate. Apart from that, no other neurological abnormalities were found. The increasing sleep duration induced us to perform a CT scan on 23 Sep 05.

Findings of 26 Sep 05:
Awake, adequately responding patient. Eardrums without signs of irritation, palpation of the abdomen without pathological findings. Heart and lungs normal.
Neurology: Flat CSF accumulation, elevated tone of the right leg, asymmetrical reflex status with brisker reflexes on the right upper and lower extremity. Babinsky on the right slightly positive, on the left negative. Sensibility on the right foot seems reduced.

Diagnostic measures:
Laboratory results of 23 Sep 05: no pathological findings for electrolytes, liver values, Quick's value and blood count with the exception of a thrombocytosis of 626 G/l (normal range: 100-609 G/l) and slightly reduced PTT of 31 sec (normal range: 32 – 38 sec).

CT of the skull performed on 23 Sep 05:
No haemorrhage, but now congestion of the lateral ventricle and the 3rd ventricle with additional subdural hygroma of the right hemisphere and midline shift to the left. Increase of the subcutaneous CSF accumulation in the area of the surgical approach occipitally to the midline. Parenchymal lesion frontally on the right and occipitally on the left unchanged in comparison with the previous examination.

CT of the skull performed on 24 Sep 05 :
Better expansion of cerebral sulci, no other abnormalities.

Pelvic overview of 26 Sep 05: normal

Sonography performed on 26 Sep 05: Visualization of the kidneys and the lower urinary tract without pathological findings; lymph nodes not assessable because of massive intestinal gases.

Clinical course and assessment:
Due to Haya's increasing sleep duration and somnolence, we performed a CT scan on 23 Sep 05, which showed an increase of the CSF accumulation and congestion of the lateral ventricle and 3rd ventricle. After consulting Prof. van Valthoven, a lumbar puncture was performed, and the CSF pressure was found to be 50 cmH_2O. After consulting the neurosurgeon again, 20 ml of CSF were withdrawn so that the pressure declined to 10 cmH_2O.
In the further clinical course, the general and neurological condition of the patient showed marked improvement. The CSF accumulation decreased.

On 27 Sep 05 we could discharge the patient to outpatient care in a stable condition. It was agreed with Prof. Korinthenberg that the family will stay in Freiburg for another two weeks and see Prof. Korinthenberg for regular follow-up checks.

The follow-up checks are recommended in view of the clinical situation of the child. For the time being we do not suggest any stressful follow-up examinations such as lumbar puncture or CT, as these would not have any consequences without the clinical correlate of a deterioration in the patient's general health.

Further therapy:

- Follow-up visits to Prof. Korinthenberg, as agreed.
- In case of increasing somnolence, vomiting and headache as signs of elevated cerebral pressure the patient should return for a follow-up check at an earlier time.
- If the clinical condition remains stable, no invasive or stressful examinations such as lumbar puncture or CT scans for the time being.

Yours sincerely,

Prof. Dr. med. R. Korinthenberg	PD Dr. med. V. Mall	Dr. med. V. Haug
Medical Director	Oberarzt	Ward Escherich

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Anmeldung: 0761/270-4352 (Mo-Fr 8-8.30, 12-13, 15-15.30 Uhr)

Zeichen: kor

Freiburg, 04.10.2005

UNIVERSITÄTSKLINIKUM FREIBURG
Zentrum für Kinderheilkunde und Jugendmedizin•
Mathildenstr. 1 • 79106 Freiburg

To whom it concerns

N: Family Al Yassin

25436229_20051004
Haya Al Yassin geb. 09.06.2003,
Robert-Koch-Str. 1, 79106 Freiburg

Dear colleagues

I report in short about the above patient who was treated as an inpatient from 7th September to 27th September and as an outpatient on 29th Sept. and 4th October 2005.

Diagnosis: pilocytic Astrocytoma (WHO I) of the right cerebellar hemisphere,
Severe and protracted occlusive hydrocephalus,
Total tumour resection on 9. September 2005,
Postoperative subdural effusions and malresorptive hydrocephalus,
Relief of increased intracranial pressure with one single lumbar puncture on 23. Sept 2005,
Truncal and right sided limb ataxia and hemiparesis.

The child who showed a continuous and severe deterioration of all neurological functions since the age of 1 year came to our hospital primarily under the suspicion of a progressive neurometabolic disease. MRI on 8th September showed a very large cystic tumour of the right cerebellar hemisphere with severe compression and displacement of the brainstem and consecutive hydrocephalus. On 9th September the tumour was operated and removed completely. The total resection was confirmed by post-op MRI with and without contrast enhancement. Histology revealed a typical Grade I astrocytoma. The proportion of patients with this tumour who are relapse-free after 5 years is reported as 90%, so at this time no further treatment is necessary.

Postoperatively the clinical state of the child improved gradually. However, CCT on 13th and 19th September showed bilateral subdural effusions of 10-17 mm width. On 23th September

the child slept an abnormal amount of time, the occipital trepanation defect was bulging, and the CCT showed a persistence of the effusion on the right and an enlargement with compression of sulci on the left side. A lumbar puncture was performed showing an increased ICP of 50 cm H2O. After removal of 20 ml of CSF the pressure fell to 10 cm and the state of the child improved distinctly. On 24th September the sulci over the left hemisphere were visible again, the width of the CSF spaces was otherwise unchanged.

From 24th Sept. to 4th Oct. the state of the child improved continuously. Haya is alert, she repeats words, she feeds normally and she has a normal sleep-wake cycle. The occipital scar is not bulging, there is no CSF oedema. As residual neurological symptoms she shows an inconstant squint and right sided hemiplegia and ataxia. As a result of the good clinical condition we refrained from further lumbar punctures.

Further treatment:

Concerning increased intracranial pressure:
If somnolence, bulging of the occipital scar, vomiting or any deterioration of the clinical state occurs, a lumbar puncture should be performed within a few days and the CSF pressure measured. Removal of CSF will probably solve the problem. If this situation recurs repeatedly the operative placement of a CSF shunt will be necessary.

Concerning the residual neurological symptoms:
An intensive rehabilitation program with physiotherapy, occupational therapy and eventually speech therapy has to be started. This should be performed preferentially in the home country. If this is not feasible, we can help to find a suitable hospital in Germany.

With kind regards

R. Korinth

Prof. Dr. Rudolf Korinthenberg

Addendum to our earlier reports:

Haya was seen on September 6th as a day-clinic patient. The parents reported that on September 5th she had slept some hours more than on the preceding days. Her behaviour gave indications of headaches. Her squint of the right day appeared to be constantly, and her upper eye lids appeared somewhat swollen, more on the right then on the left side.

Under the suspicion of raised ICP we performed a repeat lumbar puncture which showed an opening pressure of 32 cm H2O, normal CSF cytology and chemistry.

After the LP Haya slept for 40 minutes, then she awoke and was alert. At examination at 17.30 h she was alert, the squint was no longer constant and the swollen eye lids had distinctly improved.

The child was dismissed in a good clinical state and allowed to travel back to her home country.

Epicrisis and Recommendation: the malresorptive hydrocephalus is clearly still active, but at a lower degree than soon after the operation. I see a realistic chance that the resorptive capacity will increase further and that the child in the longer term can be treated with out a shunting operation.

Haya should be observed closely for her well known signs and symptoms of increased ICP. If necessary, one or repeated lumbar punctures could be performed. However, if after 2 month the situation has not resolved, I would recommend a shunting operation.

With kind regards

Prof. R. Korinthenberg