Afri-VIPE 2021 Case

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Keywords: Child protection, neglect, unintentional, risk

GP Consult Note

Identifying Data:
Source: father
Reliability: unreliable

Chief Complaint: "Head injury x 2 weeks and pelvic & femur fracture now febrile x 24 hours"

Presenting Problem and History of the Present Illness:
The patient is a 7-year-old male Themba Mahlangu with no significant past medical history who presented 2 weeks ago to accident and emergency department after sustaining a head injury, facial fractures, and pelvic and femur fracture after a rollover motor vehicle accident. The patient was in the bed of the pick-up truck when his father was driving intoxicated. The patient sustained a subdural hematoma (SDH) which showed Computerized Tomography (CT) evidence of worsening of the SDH 24 hours post-accident and was intubated for 6 days and is currently extubated and mildly sedated. The left mid-shaft femur is fractured, and the patient underwent an external fixation on day 0 and an open reduction internal fixation on day 6. The orthopedic doctors did not wish to operate with an internal fixation immediately due to the head injury and awaited the neurosurgeon's clearance. The patient then presented with fevers with CT evidence of septic joint in left hip and infectious disease (ID) was consulted. Blood cultures grew Staph Aureus.

Past Medical History: asthma, dental caries

Past Surgical History: cleft lip repair age 2

Health maintenance: up to date (UTD) on immunizations. Last well child visit (WCV): last known at age 2, no subsequent visits. Road of Health chart not available (The patient-held Road-to-Health Booklet is the child's formal medical record and an essential part of good primary care. It gives the child's medical history, immunisation record, developmental milestones and growth record. Growth is plotted on weight-for-age and height or length-for-age charts (growth charts).)

Past OBGYN History: NA
Past Psychiatric History: NA

Medications: Denies

Hospital Medications: Morphine, Vancomycin, Colace,

Allergies: no known drug allergies (NKDA), no known food allergies (NKFA), denies environmental or latex allergies

Family Medical History: all alive and otherwise healthy

Developmental History of Themba
Themba was born through normal vaginal delivery and there were no complications during birth. However, he was born with a cleft lip and palate that was repaired at age 2 years due to the long waiting list for surgery. The operation was made possible by the Smile Foundation. He started grade 2 in February 2021. He received limited stimulation before starting school as he was not been a creche or pre-primary school due to the dire financial situation of the family. He had problems adjusting to the school environment. He played with the children in his neighborhood as well as with his siblings. He is part of the school feeding scheme.

Social History:
Themba Mahlangu, is a 7-year-old Zulu boy who lives in Hammanskraal, a rural community about 60 km from Pretoria. His parents are divorced, and he lives with his mother, Esther and two older siblings, a 9-year-old sister, Portia and 11-year-old sister, Anna. Esther earns a small income from selling sweets outside the school yard. The main family income is from the Childrens' child support grants. This indicates a low socio-economic status for the family. At times there is not enough food to sustain the family. The relationship between parents is strained. Esther has a new boyfriend, Esechiel, that at times stays overnight. He does not tolerate Esther's children. Esechiel has a 17-year-old son, Alfred, who lives with Esther and her children, who uses an illicit drug called, Nyaope also known as Wunga and often acts out. (https://www.sciencedirect.com/science/article/pii/S037907381830481X)
It mainly consists of heroin and marijuana. Common ingredients include anti-retrovirals (ARVs), rat poison, etc.

Whoonga is highly addictive, even after only one hit, and leads to violent side-effects such as anxiety, aggression, stomach cramps, slowing down of the heart rate and lungs. If taken in overdose, heart and lung function reduction becomes fatal

Esther and Themba's father, David, got married when Esther was pregnant with the first child, Portia 11 years ago. They were happily married. After the birth of the second child, their relationship became strained. David wanted a son. Esther struggled to look after both children and keep her household running while working as a housekeeper. She quit her job and the situation between her, and her husband became worse. Esther thought that bearing a son would salvage the deteriorating marriage. She gave birth to the boy, Themba.

Themba's birth made matters worse. He was born with a cleft lip and palate. The family started to struggle financially. David started abusing alcohol and became violent at times.

In order to make ends meet, Esther started a small business of selling sweets outside the school yard. She was seldom at home. Anna had to leave school to look after the household and assist with raising Themba. However, she often left him unattended when she went out to spend time with friends.

Themba's lip and palate were repaired when he was 2 years old. This operation and the consequential care that he needed, were too much for David. He started drinking more and became more and more violent. At the age of 5, Themba developed anxiety and asthma. This was too much for David to handle and he left his family and started working as a farm worker at Ellisras, where he is currently still employed.

Themba's mother is seldom at home during the day as she sells sweets outside the school yard to make ends meet. In the afternoons after school when Themba comes home, he is supposed to be cared for by his older sister Anna and Esther's new boyfriend, Esechiel's 17-year-old son, Alfred. Anna and Alfred do not take their "baby sitting jobs" seriously. Anna is angry because she had to drop out of school to look after Themba and Alfred spends his time "making money" to support his Nyope addiction. When Alfred cannot get his fix, he becomes physically abusive towards Themba.

Alfred also steals money from Esther. Esechiel refuses to believe this about his son. This is causing tension in the household. Esther accepts Esechiel's refusal to believe anything bad about his son because he is supporting her financially.

Themba enjoys school, but lately, however he has become withdrawn and quiet. When he tries to confide in his mother about Alfred's abuse, Esther tells him not to mention it because he is Esechiel's son and Esechiel is helping them with a little bit of money.

Themba's father, David is a farm worker from Ellisras, 240 km from Hammanskraal. He visits the children once in two months and sometimes take the sons with him when he delivers farm produce in Pretoria. On one of these trips, he was intoxicated and caused an accident on his way home, where he was not hurt but Themba sustained a moderate head injury and was rushed to the academic hospital in Pretoria.

Sexual History: NA

Review of Systems per Father:
General: states child was "normal"
HEENT: Says was born with a cleft lip but it was repaired and was otherwise "normal" states "didn't have any head problems till he got here" Denies visual disturbances, denies hearing changes or disturbances, denies balance problems, denies nasal congestion, denies sinus pressure
Cardiovascular: Denies chest pain, palpations, dyspnea on exertion, syncope or lightheadedness
Respiratory: Denies cough, wheezing, or dyspnea when sitting or with exertion
Gastrointestinal: Denies heartburn, nausea, vomiting or constipation. Denies change in bowel habits, denies changes in stool quality or color, denies blood or mucous in stool, denies flatulence, denies bloating.
Genitourinary: Denies dysuria, hematuria, frequency or urgency or flank pain
Reproductive: NA
Endocrine: Denies cold/heat intolerance, hair loss, dry skin, denies excessive thirst, denies skin changes
Musculoskeletal: States was "normal" until this broken femur and now he's "broken"
Neurological: Repeats again he was "normal" Denies alteration in sensation or motor function, Denies headaches and dizziness
Psychiatric: NA Father repeats the child was "normal before getting here"

On Examination
Vitals: BP 110/ 70mmHG, Pulse - 122bpm, Resp 26 bpm, Weight - 30 kgs, Height – 116cm, BMI – 22 **kg/m²**,
Temp **38, 8ºĆ**, HGT - **6 mmol**, **HB – 9. 5 gm%,**
(Look up equivalent values in your country) http://www.scymed.com/en/smnxpf/pfxdq210_c.htm

General: Looks pale and ill
GCS currently 12
(He opens eyes when he is called, is confused and can localise a pinch of his ear)

HEENT:

- Head – Bandaged, no obvious bleeding or swelling observed
- Eyes – no swelling or discharges – left pupil is round reacting to light and accommodation (PERRLA) while right pupil is round, dilated but reacting to light
- Ears – No bleeding observed
- Nose – Septum in the midline, no bleeding
- Throat – Not assessed

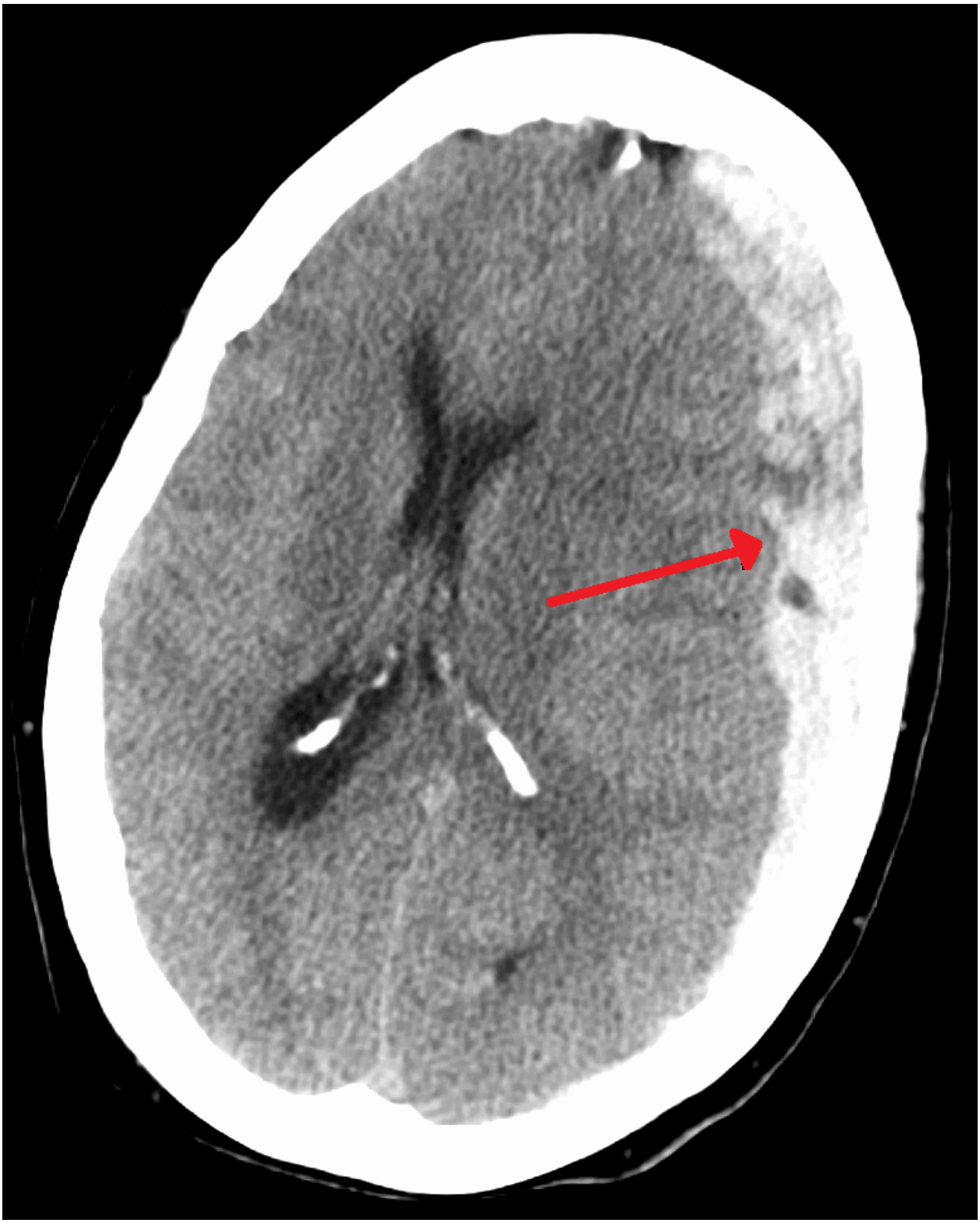
Cardiovascular: Heart sound normal but tachycardia present 122/min; Regular.
Respiratory: Air entry equal bilaterally, resonance with percussion no adventitious sounds
Abdomen: Good bowel sounds, soft, no organomegaly
Musculoskeletal: Swollen left thigh with soiled dressings. Thigh looks swollen, red and shiny on the mid shaft and tender. patient is non-weight bearing

Neurologically: Hemiplegia upper extremities – right flaccid shoulder, increased tone developing in elbow and wrist flexors.
Lower extremities – right lower limb mild hypertonic
Concentration and memory: impaired after injury
Speech: slurred speech – possible receptive aphasia
Disorientated to person, place and time
Emotional: confused, agitated: Rancho level IV https://www.physio-pedia.com/Rancho_Los_Amigos_Level_of_Cognitive_Functioning_Scale
Level IV: Confused/Agitated: Maximal Assistance
The individual is in a hyperactive state with bizarre and non-purposeful behavior
Demonstrates agitated behavior that originates more from internal confusion than the external environment
Absent short-term memory

Labs results (students may need to look up normal values)
http://www.scymed.com/en/smnxpf/pfxdq210_c.htm

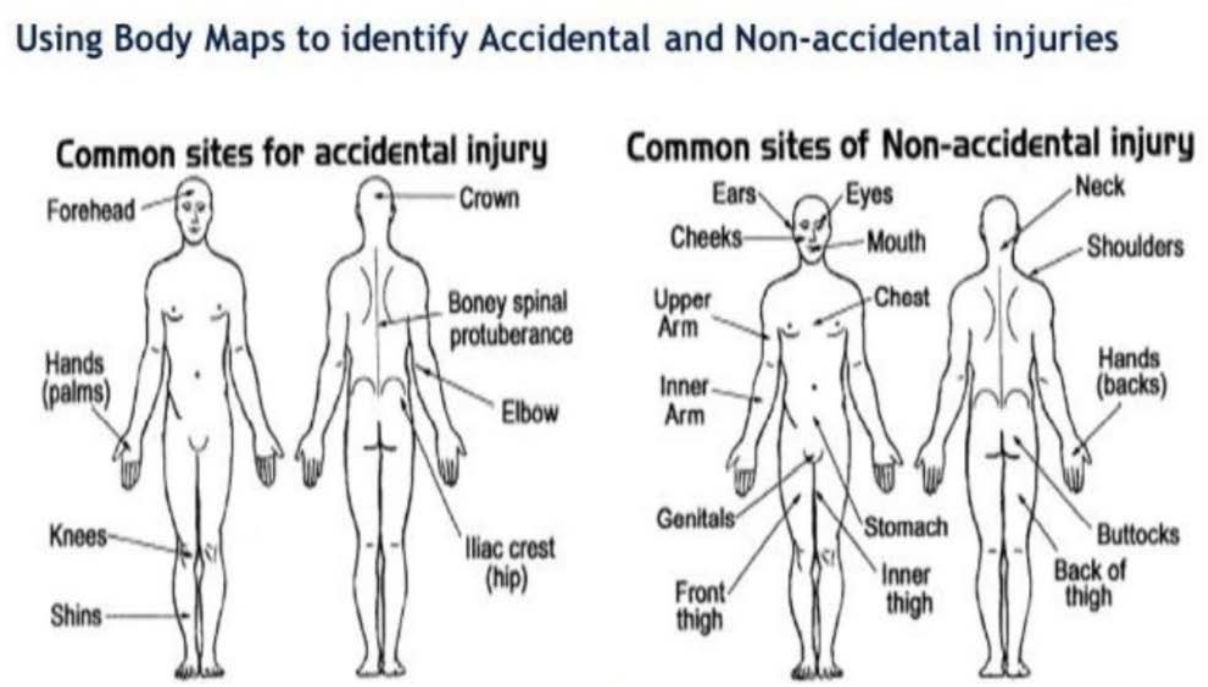
- FBC (Full blood count)/WBC (white blood count) – White Blood Cell Count 4, 5; Differential - Neutrophils 50%; Monocytes 30%; Eosinophils 2%; Basophils 1%;
- Hb 10,mg/dl; MCV = 80; Platelets 200; Pending: HbA1C, eGFR

CT Scan Head: Subdural hematoma (SDH) present. Repeat CT scan 24 hours with worsening of SDH. CT scan this am with improvement in swelling and SDH.
Initial CT scan image below:



Chest X-RAY: both lung fields are clear and expanded. No infiltrates noted. Basilar focal atelectasis is present in the lingula. Heart size normal. No lymphadenopathy. Comparison: none. Correlate clinically

Body Map: to determine accidental or non-accidental injuries



Assessment/Plan: TBD by students

After discharge from the academic hospital Thamba can follow up at Jubilee hospital where there are also team members and students who can follow up on his care and he would need more long-term help.

Previous Occupational Therapy Note from previous visit:
Developmental milestones:

- Sitting: 8 months
- Crawling: no crawling – used a walking ring
- Standing: 12 months
- Walking: 13 months
- Talking: 14 months

Educational progress:
Themba Mahlangu is currently in Grade 1 and has not been in a creche (daycare) or preschool before due to financial constraints in the family. His teacher has requested an

assessment from the district psychologist and occupational therapist and is awaiting an appointment from the Department of Education. His teacher expressed the following concerns:

- Poor pencil grip
- Unable to write his own name
- Poor concentration and attention span
- Tends to be very busy in class
- Doesn't complete tasks on his own
- He reverses letters and numbers
- Doesn't know left and right
- Tires easily
- Poor posture at his table

Pharmacist Note:
The intern requests morphine for the pain, where at this point the clinical pharmacist reminds the doctor that the patient has suffered a head-injury and that morphine is C/I. Possibly change to IV paracetamol and provides the reasoning behind it:
IV paracetamol has efficacy comparable with that of standard equivalent doses of many NSAIDs and tramadol, with fewer side-effects.
IV paracetamol has 100% bioavailability (compared to the variable 70-90% or an oral dose)
As a component of a multimodal analgesic regimen, it is generally considered to have useful opioid-sparing effects.