Meningitis in Children and Adults

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JHO

MULAGO NATIONAL REFERRAL HOSPITAL

Case Presentation

- TA ,5/M a referral from Bukomero HCIV with a diagnosis of Cerebral malaria for further management after the 3rd dose of iv artesunate presented with 2/7 history of high grade intermittent fevers, convulsion and loss of consciousness..

Emergency Assessment and Management

Airway and C spine	No noisy breathing	No intervention needed
Breathing	RR-28,saturating at 88-90% on R/A Transmitted sounds	Initiated on oxygen 2L/min by nasal prong. Saturating at 98-100%.
Circulation	PR-125bpm, warm extremities,CRT-2sec, BP-102/53, S1+S2+0	Inserted cannulas G20.
Disability	Asleep, arousable with hyper extended neck in opisthotonos position, AVPU=P, GCS-E2V3M4, 9/15. Pupils Anisocoria(Rt 3mm, Lt 5mm, sluggishly reactive to light) gag, corneal reflex brain stem intact, Neck stiff, Kernings positive, Brudzinsky positive RBS-2.0mmol/l	Child was 12kg, IV D10% 60mls bolus NGT inserted. Maintenance fluid[NS/D5] Lateral recumbent position
Exposure	No sign of major trauma/injury, Patient febrile of 38.8	Exposure + tepid sponging + iv paracetamol 180mg tds

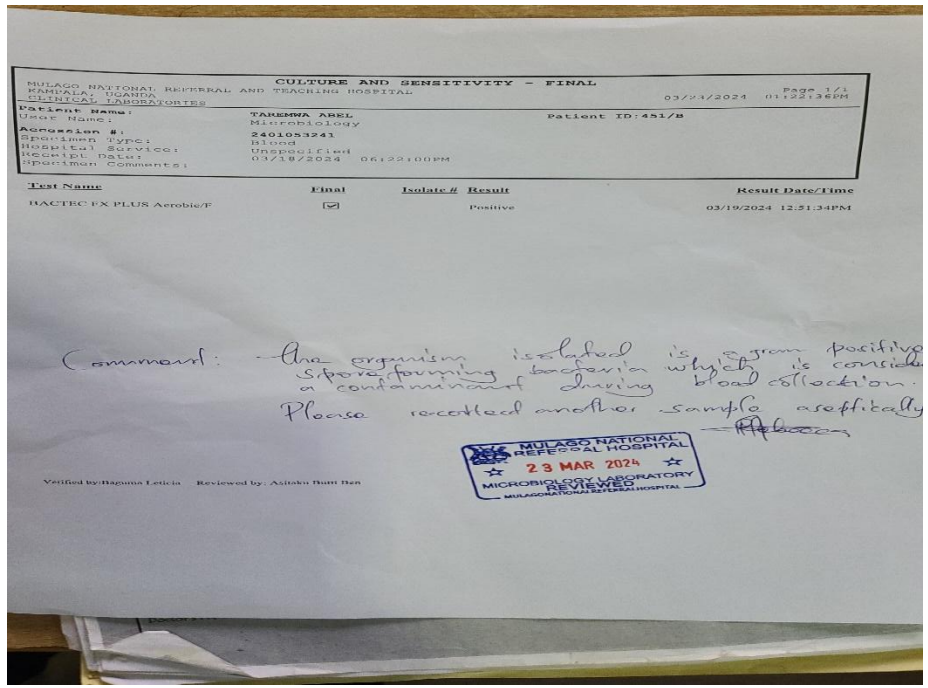
Signs and symptoms	Had 5 episodes of generalized tonic clonic convulsion lasting about 3mins with associated urine incontinence and reduced level of consciousness post-ictal no bowel incontinence and scream on touch(irritable)	
Allergies	Unknown	
Medications	Iv artesunate, paracetamol, not on long term medication	
Past medical history	A referral after treatment with no improvement. No known chronic illness. Notably, child has no known chronic illness however has had several outpatient visits within the month for upper respiratory tract infections with no improvement. Noted history of cough, fever, headache, malaise, irritability and vomiting	
Last meal	Beans and matooke, 12 hours prior to the loss of consciousness and convulsion	
Events	first episode of convulsion started at home when the child was seated, noted sudden fall and jerking movement of the whole body parts.	

Problem List

- Convulsion
- Hyperthermia
- Reduced level of consciousness
- Inability to feed
- cough

Investigations

- RBS- 2.0mmol/l
- LP –parents declined
- Blood culture, gram positive spore forming bacteria, awaiting the second culture results.
- Brain CT scan-multiple patchy leptomeningeal enhancement and severe brain parenchyma cortical/subcortical white matter hypo-attenuation bilaterally with associated moderately raised ICP.
- MRDT positive
- B/S- No malaria parasite seen



CULTURE AND SENSITIVITY - FINAL

MULAGO NATIONAL REFERRAL AND TEACHING HOSPITAL
KAMPALA, UGANDA
CLINICAL LABORATORIES

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03/24/2024 01:22:36PM

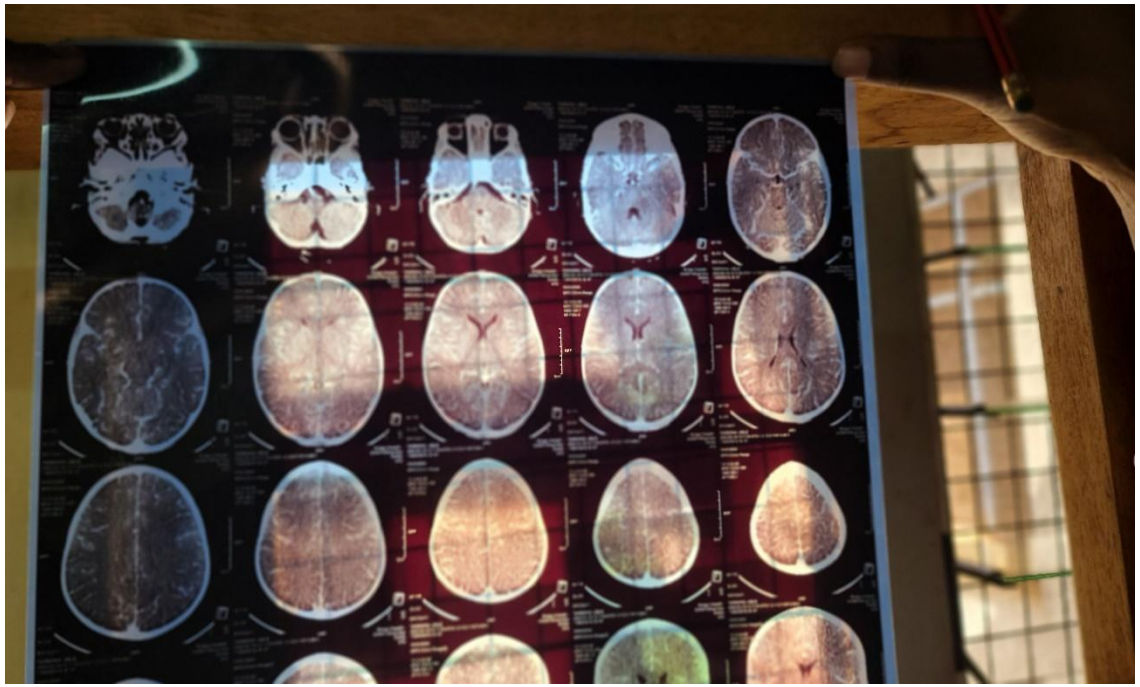
Patient Name: TAREMWA ABEL — Patient ID: 451/B
User Name: Microbiology
Accession #: 2401053241
Specimen Type: Blood
Hospital Service: Unspecified
Receipt Date: 03/18/2024 06:22:00PM
Specimen Comments:

Test Name	Final	Isolate #	Result	Result Date/Time
BACTEC FX PLUS Aerobic/F	☑		Positive	03/19/2024 12:51:34PM

Comment: The organism isolated is gram positive spore forming bacteria which is considered a contaminant during broad collection. Please recollect another sample aseptically

MULAGO NATIONAL REFERRAL HOSPITAL
23 MAR 2024
MICROBIOLOGY LABORATORY
REVIEWED
MULAGO NATIONAL REFERRAL HOSPITAL

Verified by: Baguma Leticia Reviewed by: Asiimwe Ihunt Ben



Continuation

- HIV serology; Negative
- Gastric lavage Gene xpert, negative for MTB
- CBC; Hb-9.3g/dl,WBC-13.2, Absolute Neutrophils count of 10.3,PLT-287,
- CRP-249mg/l (normal)
- RFTs; urea-20mmol/l,creatinine-83mmol/l, normal range
- Electrolyte; Na-146(N),Cl-96(N), K-5.64(Slightly raised)

Diagnosis

- Acute bacterial meningitis
- Viral meningitis/meningoencephalitis
- Tuberculous meningitis
- Cerebral malaria

Treatment and follow up

- IV ceftriaxone 1.2g od, Iv metronidazole 120mg 8hrly later switched to meropenem 480mg 8hrly and iv gentamycin od for 14 days
- Added acyclovir
- Tabs acetazolamide 120mg bd x1/52
- IV phenobarbital 180 stat, then 60mg od.
- Iv paracetamol 180mg 6hrly,
- NGT feeds 200mls 3hourly.
- Urethral catheter
- Physiotherapy, regular bed turning

Follow up

- Patient still in ward, 10 days in ward
- Came in unconscious, GCS markedly improved, AVPU=V, E4V4M5(11/15), PEARL~4mm diameter, Kernig's still positive, no cranial nerve palsy, reflexes equivocal
- Not in obvious distress and was wean off oxygen.
- This morning, screaming stopped, child calm, fever free for 3 days,
- However still unable to sit in bed.
- Patient still under care, for review by physiotherapist, ophthalmologist, ENT team