Seed
GLOBAL HEALTH

Project
ECHO

ECHO SESSION CASE PRESENTATION

By
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Case Presentation

PC -

GBW 1/52

Reduced appetite 1/52

Confusion 1/7

HPC –

20Y/F with no known chronic illness, referred in from a peripheral facility With 1/52 hx of GBW, loss of appetite, non projectile vomiting and 1/7 hx of confusion and not passing out urine. Was treated for UTI and clinical malaria however no improvement.

Primary Survey (Emergency Assessment and Management)

A	Airway	• Patent	• Maintain patent airway
B	Breathing	• Mild respiratory distress with kusmaaul breathing • tachypneic RR 24, SPO2 95% RA • chest symmetric with equal air entry no added sounds	• Continue monitoring vitals
C	Circulation	• Warm extremities • CRT <3s • tachycardiac 121b/m, regular • BP 101/64mmHg • S1 S2 +0	• Two lines secured • Blood drawn to carry out investigations. • 2L NS in the first hour • IV ondansetron 8mg

Primary Survey (Emergency Assessment and Management)

D	**Disability**	• **Confused (GCS 14/15)** • **Restless and confused** • **Pupils ~ 4mm , equally reactive to light** • **RBS – 30.1mmol/L**	• **IM haloperidol** • **Passed urinary catheter to monitor urine output. (~ 100mls concentrated)** • **IV actrapid 3IU in 500ml NS with target of 6IU in L per hour.** • **IV KCl 20mmol while awaiting electrolytes results**
E	Exposure	• Axillary temperature of 37.2	• Continue with fluids • Continue monitoring vitals

Secondary Survey (Head-to-toe examination)

G/E - Sick looking, confused and restless in mild respiratory distress, dehydrated, No jaundice, No pallor, no cyanosis ,no edema, with extensive hypopigmentation on face, lips and hands

CVS – normal active pericardium, apex beat midclavicular 5th intercostal space, no hives no thrills, S1 S2 + 0, no added sounds.

R/S – mildly tachypneic, chest symmetric, no tracheal deviation, normal percussion note bilaterally, equal air entry ,no added sounds.

Secondary Survey (Head-to-toe examination)

P/A – Normal abdomen fullness, soft, non tender, no mass, no organomegalies, normal bowel sounds

ENT – Oral sores, no nose or ear discharge or pain

CNS – Confused (M 6, V4 E 4), restless, neck soft, negative kerning, PEARL, normal tone, power and reflexes

MSK – Normal muscle bulk, no joint swellings or tenderness

SAMPLE History

S	Sign & Symptom		
		• **Reportedly to be unwell for 1/52 with GBW, reduced appetite that was associated with non projectile vomiting and dizziness that were followed by a 1/7hx of confusion and anuria prior to admission. No associated with fevers, headache, chest pain, cough, abdominal pain, LOC or convulsions.** • **Unclear hx of polyuria, polyphagia and polydipsia.** • **No hx of lower limb or facial swelling.**	
A	Allergies	No known food and drug allergies.	
M	Medication	Been managed for UTI and clinical malaria from a peripheral health facility with unknown medications.	

SAMPLE History

P	• **Past Medical History** • **Past Surgical History** • **FSH**	• **Managed for UTI and Clinical malaria before admission with unknown medications, with vitiligo since 7, No any other chronic medical illnesses known.** • **No h/o any operations, blood transfusion, and trauma** • **Student, 3rd born of 4 (2 boys, 2 girls). No any family hx of any chronic illness.**	
L	Last meal/LNMP	• Unknown	
E	Events	Patient had 1/52 hx of GBW, loss of appetite and non projectile vomiting, that later became confused and anuric. Was managed for UTI prior to referral from peripheral facility.	

Problem List

1. Hyperglycemia
2. Confusion and restlessness
3. Dehydration
4. Resolving UTI

Investigations

- RBS – 30.1mmol/L , HbA1C 14.4%
- mRDT- Negative, BS – No MPs
- CBC: WBCs -10.69, Neu - 7.6 slightly high, Hb 15.2, PLT 171
- Urinalysis: Ketones +++, Glucose+++, PH=6.9, Nitrites-ve, PUS cells++, epithelial cells+, yeast cells ++, no blood
- Serum Electrolytes: K=4.8mmol/l, Na 160mmol/L
- RFTS: Creatinine -186umol/L, Urea 19.4mmol/L
- LFTS: normal
- Urine hCG – Negative

Diagnosis

- DM with DKA
- AKI
- Resolving UTI, candidiasis
- Vitiligo

Ddx

- Malaria
- Uremic encephalopathy
- CKD

Management

Supportive

- IM haloperidol 5mg stat
- IV ondansetron 8mg 8hrly for one day
- IV omeprazole 40mg OD

Definitive

- IV N/S 2L in first one hour, 1L in next one hour, 1L in next 2hours, 1L every 4 hourly.
- IV KCL 20mmol/l stat pre-investigation
- IV actrapid 6IU in 1L of NS per hour(via the second line) as monitored RBS hourly (with target of below 14mmol/L), and ketonuria daily.

- After 2L of NS in the first one hour, Urine output was about ~500ml with clearing urine color.
- Within 8hours 5L of NS was given, RBS was 16.1mmol/l, and K+ as per results was 4.8mmol/L. Urine output was about 2.9L Continued with IV NS and Iv actrapid in 6IU in L NS per hour. KCl discontinued. After another 1L on NS, RBS was 12.6mmol/L gave D10 500mls Stat and continued actrapid 3IU in 1L/hr as RBS was continued being monitored.
- After more 2L of NS, RBS was 5.9mmol/l and insulin was stopped.

- Patient was fixed on SC Mixtard 20IU pre breakfast,10IU Pre-supper
- IV medaxonum 2g od for 5days
- IV Ornidazole 500mg bd for 5 days
- Caps fluconazole 200mg od for 5 days
- Monitor fluid intake and urine output, RFTs done daily.

Follow-up

Day	2	3	4
Vitals	• GCS 15/15 • RR 22 cycles/min • PR 101 b/min • FBS 15.4mmol/L • Temp 37.0 • Fluid input 9L • Urine output 11L	• GCS 15/15 • RR 19cyclyes/min • PR 98b/min • FBS 11.4mmol/\l • Temp 37.1 • Fluid input 6L • Urine output 7L	• GCS 15/15 • RR 20cycles/min • PR 96b/min • FBS 11.1mmol/L • Temp 36.9 • Fluid input 4.5L • Urine output 4.2L
Labs	• Urinalysis Ket ++, Glu ++ Pus + • S/E Na 150mmol/L K 3.2mmol/L • RFTs: Urea 11 Cr 154 • CBC: Neu 7.2 Hb 14.4	• Urinalysis Ket +, Glu ++Pus + • S/E Na 148mmol/ K 4.6 • RFTs: Urea 8.8 Cr 127 • CBC: Neu 7.0 Hb 13.9	• Urinalysis Ket -ve, Glu + Pus -ve • S/E Na K 4.4 • RFTs: Urea 6.2 Cr 99 • CBC: Neu 6.6 Hb 13.2
Interventions	• SC Mixtard 25IU, 15IU • NS 4.5L/24hr • Encourage oral fluids • IV KCl 20mmol 12hrly	• SC Mixtard 25IU, 15IU • NS 3.5L/24hr • Oral feeds and fluids	• SC Mixtard 25IU, 15IU • NS 2L/24hr • Encourage oral fluids

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- Patient became fully conscious, calm
- Ketones were clearing
- Urinary catheter draining ,fluid input and urine output closely monitored.
- Creatinine and urea levels reducing.
- K+ levels went to 3.2mmol/L, IV KCl 20meq started 12hourly, with continued electrolytes monitoring
- Vital signs including FBS,BP, PR, RR, Temp monitored daily

- Patient with parents were educated about DM, and on how to best control sugar levels.
- Urinary catheter removed on day 4 for the urea and creatinine had cleared. (Urea 6.6mmol/L Cr 99umol/L at time of removal)

Disposition Plan

- Fixed on Mixtard 25IU Pre-breakfast, 15IU Pre-supper (0.6/kg/day)
- Discharged on day 6 with RBS ranging from 7-10 mmol/l
- Linked to nearest DM clinic.

Thank you