Seed GLOBAL HEALTH

Project ECHO

ECHO SESSION CASE PRESENTATION

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Case Presentation

Case - 60y/F, no known chronic illness, brought in from home with a h/o loss of weight for 4/12, associated with fevers, LOC for 3hrs before admission, abnormal breathing, productive cough, and 4 episodes of convulsions (collateral Hx). No convulsions while in the hospital

Primary Survey (Emergency Assessment and Management)

A	Airway	• Patent but threatened by the reduced LOC	Maintain airway patent
B	Breathing	• Severe respiratory distress with Kusmaul breathing • RR= 26 bpm, SPO2= 79-84% at RA • Equal air entry with coarse bilateral crackles	• 8L/min O2 by face mask, • SPO2 improved to 98% on O2
C	Circulation	• CRT >2s, cold peripheries • PR=118 bpm, thin, thready & regular • BP=79/63mmHg • S1S2 normal but tachycardic	• 2 large bore cannulas inserted • Picked off blood samples for investigations • IV N/S 2L in the first 1 hour 45min,BP=112/82mmHg,PR=102BPM

Primary Survey (Emergency Assessment and Management)

D	**Disability**	• **Semi-conscious, GCS 9/15 (M=5, E=2, V=2)** • **Pupils normal, equal & reactive** • **Neck soft , kerning negative** • **RBS =error 8 (>33mmol/l)**	• **Patient put recovery position** • **Passed urinary catheter, urinalysis** • **SC Lantus 15IU stat, 2.5IU of actrapid in every 500mls of N/S, aiming at 5IU in 1L per hour, repeated for another 2hrs** • **IV KCL 20mmol given while waiting for electrolyte results**
E	Exposure	• Axillary temperature was 36.2˚C • No life threatening injuries	• Covered the patient • Continued fluids

Secondary Survey (Head-to-toe examination)

G/E – very sick looking, in severe distress, semiconscious, severe DeH2O, no pallor, jaundice, no cyanosis, no oedema and lymphadenopathy

CVS – normal active precordium, no obvious mitral and parasternal heaves

HS1,and 2 heard and normal, no added sounds

R/S – normal chest shape, no tracheal deviation, dullness in the lung bases

equal air entry however with coarse crackles bilaterally

Secondary Survey (Head-to-toe examination)

P/A – Scaphoid abdomen, moving with respiration, no palpable organs

ENT –good oral hygiene, no nose or ear discharge or pain

CNS –semiconscious, GCS=9/15, PEARL, normal tone

MSK – wasted with reduced muscle bulk

SAMPLE History

S	Sign & Symptom		
		• **Reportedly had obvious weight loss , LOC, 4 episodes of generalized convulsions, had polyphagia and cough** • **Abnormal forced breathing, semi-conscious, Confused, with obvious prominent zygomatic arches, sunken eyes, dry lip**	
A	Allergies	No known drug or food allergies	
M	Medication	Was not on any chronic drugs neither had she taken any drugs	

SAMPLE History

P	• **Past Medical History** • **Past Surgical History** • **FSH**	• **Index admission, No h/o any chronic medical illnesses** • **No h/o any operations, blood transfusion, and trauma** • **Married to one man , with 6children(2boys, 4girls), one daughter has DM and HTN**	
L	Last meal/LNMP	Post-menopause	
E	Events	Patient was found with reduced LOC in her bedroom 3hrs prior to admission, unknown time of onset, first episode in her life	

Problem List

1. Unrecordable hyperglycemia (DKA)
2. Loss of consciousness
3. Convulsions
4. Hypovolemic shock
5. Severe dehydration
6. Abnormal forced breathing
7. Cough

Investigations

- RBS – Error8 (>33mmol/l)
- MRDT= Negative
- CBC- slightly elevated WBCs=14.7, Neu=7.2 slightly high, other parameters normal
- URINALYSIS= Ketones+++, Glucose+++, PH=6.9, Nitrites+, others normal, PUS cells++, epithelial cells+, no blood
- Serum Electrolytes, K=2.9mmol/l, HCO3= 16.2mmol/l, Na, CL Normal,
- RFTS -Creatinine -98, Urea 6.4, NORMAL.
- LFTS- normal
- RCT – negative
- CXR- Heterogenous opacities bilaterally, no hilar lymphadenopathies
- Sputum Gene xpert was negative
- HBA1C=11.2%

Diagnosis

DM Complicated by

- DKA
- Severe Hyperglycemia

2. Bronchopneumonia
3. UTI

DDX

- Pulmonary TB
- Malaria

Management

Supportive

- Oxygen 8L/min,
- Keep the patient warm by covering them with blankets

Definitive

- IV N/S 500mls in 15min (SBP<0mmHg), then 500mls in the next 45min, when SPB was 98mmHg), added 1L in another 1hr
- SC Lantus 15IU stat, then started IV actrapid 5IU in 1L of NS per hour(pt had 2lines), repeated for 4hrs, monitored RBS hourly, and ketonuria 4hourly
- After 6L of NS, RBS was 13.2mmol/l, gave D10 500mls Stat, continued actrapid 2.5IU in 1L/hr and monitored the RBS and Ketones, After more 2L of NS, RBS was 6.8mmol/l and insulin was stopped

Management

- Patient was fixed on basal bolus lantus 10IU nocte, Actropid 3IU Pre-meal
- IV KCL 20mmol/l stat pre-investigation, then 40mmol/l twice daily for 2 days, monitored electrolytes daily (were unable to monitor hourly)
- IV Ceftriaxone 2g od for 5days
- PO Azithromycin 500mg OD for 5DAYS

Follow-up

- Improving LOC
- Breathing improved
- Continued monitoring RBS, Urine ketones, potassium (electrolytes)
- Urinary catheter was removed on day 2
- Care takers were educated about Diabetes & later patient after gaining full LOC
- Monitored vital signs (FBS, RBS,BP, SPO2, Temp, RR, PR) on the subsequent days

Disposition Plan

- Fixed on basal-bolus lantus 10IU nocte, Actropid 3IU Pre-meal
- Discharged on day 4 with RBS ranging from 7-10 mmol/l
- Advised to come back for review after 1week

Thank you