NEONATAL PRESENTATION OF LASSA FEVER: REPORT OF THREE CASES

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Background and Methods

• Management of Lassa Fever (LF) during neonatal period is a daunting task

• Clinical presentation is non-specific & there is paucity of information on the subject

• This case series is presented to increase the awareness & knowledge of care for neonatal Lassa Fever

• The case notes were reviewed after the neonates’ demise
Case 1: Dec 2015

- An 8 day old term male neonate delivered via elective caesarean section (C/S)

- Admitted with fever of 1 day, (Temp 39°C) and irritability

- Diagnosis of late onset neonatal sepsis was made

- Appropriate antibiotics was commenced according to unit protocol

- Other supportive therapy were instituted
Case 1- Dec 2015 (cont.)

- **Day 2 to 4 of admission**: Condition deteriorated, developed signs of meningitis
- Cerebrospinal fluid analysis (CSF) showed elevated protein (486mg/dl)

- **Day 5**: Developed Acute Kidney Injury (AKI) and passed blood per rectum. Died same day

- No VHF screening done, but retrospective diagnosis of probable Lassa Fever was made due to similar presentation with case 2 (NCDC SOP 2017)

- Mother was asymptomatic throughout
Case 2: JAN 2016

• Low Birth Weight male baby delivered via SVD at home admitted few hours after birth

• Initially managed for perinatal asphyxia and discharged home on the 10th day of life

• Re-presented on the 22nd day of life with fever of 1 day (T- 39.2°C)

• Diagnosis of late onset neonatal sepsis was made and baby was commenced on appropriate antibiotics
Case 2: JAN 2016 (cont.)

- On the 24th day of life, the baby developed features of meningitis with poor feeding, reduced activity and seizures
- CSF showed elevated protein (238mg/dl)
- Developed AKI & prolonged bleeding from puncture site on the 25th day of life
- Lassa fever screening done (result positive postmortem)
- Condition deteriorated & baby died on 26th day of life (5th day of symptoms)
Case 3: Oct 2018

• 5 day old female neonate delivered by emergency C/S

• Admitted with fever (37.7°C) poor suck of few hours, was hypoglycaemic and jaundiced

• Mother was admitted for puerperal sepsis. She had breast engorgement

• Initial assessment was early onset sepsis

• Appropriate antibiotics was commenced and other supportive therapy given

• Day 2 and 3: No remarkable change, tolerating nasogastric tube feeds
Case 3  Oct 2018 (cont.)

- **Day 4 on admission**: Developed features of meningitis, poor feed tolerance

- CSF analysis showed markedly elevated protein (640mg/dl)

- **Day 5 and 6**: Developed AKI. LF screening done on repeat CSF sample (positive postmortem)

- Developed bleeding and died later on the 12th day of life (7th day illness)

- Mother’s screening for Lassa fever was positive. She was treated with ribavirin and made full recovery
Discussion

- Neonatal Lassa Fever (LF) can easily be mis-diagnosed as neonatal sepsis and as such wrong management instituted.
- Mis-diagnosis of LF in neonates usually results in poor outcome and possible spread among care givers (Akpede et al., 2012).
- Only one of the mothers’ had symptoms suggestive of LF.
- The 3 babies developed meningitis, AKI and terminal coagulopathy which are poor prognostic features (Akpede et al., 2012, Okokhere et al., 2013, Okokhere et al., 2018).
- Lassa Fever in neonatal life has rapid progression and very fatal outcome in most cases (the 3 babies all died within 7 days).
Conclusion and Recommendation

• There is need for awareness among newborn care givers about the increasing incidence of neonatal Lassa fever infection.

• High index of suspicion is needed for early diagnosis among neonates presenting with features of sepsis, meningitis and acute kidney injury in endemic areas.

• There is need for facilities to make rapid diagnosis in order to improve management and survival.
References

• Standard Operating procedures for Lassa Fever Case management. *Nigeria Centre for Disease Control*. April 2017

