

## Presentation and outcome of neonatal Lassa virus disease in endemic areas of Nigeria: A report from Irrua Specialist Teaching Hospital

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### Introduction

Neonatal Lassa Virus disease (NNLVD) is highly fatal and could be difficult to differentiate clinically from other agents of neonatal sepsis. It could also occur as a co-infection. This scenario plus the paucity of published reports compound the difficulties in the care of febrile newborn babies in endemic areas. We report our experience from the management of a cohort of 27 babies to further create awareness and enhance the availability of data to guide preventive strategies, diagnosis and clinical care.

### Methods

Descriptive observational study of the clinical presentation and outcomes of 27 babies with NNLVD treated at the Neonatal Unit of ISTH from January 2021 to November 2024. The diagnosis of LVD was confirmed using Lassa virus reverse transcriptase polymerase chain reaction (LASV-RT-PCR) test. We classified the babies into in-born versus out-born and survived versus died and

compared presenting features between them using chi square or Fisher exact test, with  $p < 0.05$  taken as significant.

### Results

27 (1.6%) of 1,678 SCBU admissions during the period had LVD. There was history of maternal LVD in 12/27 and maternal death in 3/27 while 6/11 babies had concomitant bacteraemia. Overall, 17/27 (63.0%) babies with LVD versus 253/1,651 (15.3%) with other morbidities died (OR = 9.39 (4.25, 20.75),  $p < 0.001$ ) while 2 (20%) of the 10 survivors had developmental delays. Swelling of the body and/or bull neck, bleeding, bacteraemia and AKI on presentation were the principal risk factors that increased case fatality.

### Conclusion

NNLVD readily mimics bacterial sepsis in its presentation, is an important cause of neonatal mortality in endemic areas, and body swelling and

bleeding on presentation are pointers to high case fatality. All febrile babies in endemic areas should be tested for LVD to reduce the risk of missed diagnosis.