"Varicella's Deadly Duo: A Case of Neonatal Infection with SSSS"

Dr. Nigam Sharma | Dr. Sana Afsar

1 Department of Pediatrics, Jawahar Lal Nehru Medical College, AMU, Aligarh

INTRODUCTION

Varicella infection is relatively rare in newborns, but when it occurs, it can be severe and potentially life-threatening, with a mortality rate of 20-31%. The risk of severe disease is highest when the mother develops a rash within 5 days before or 2 days after delivery. While minor secondary bacterial skin infections are common complications of varicella, severe bacterial infections can also occur. Notably, the development of staphylococcal scalded skin syndrome (SSSS) as a complication of varicella is extremely rare. We present a case of a full-term neonate who developed vesicular varicella lesions on day 20 of life, subsequently complicated by SSSS.

CASE SUMMARY

Female baby delivered at 38 weeks of gestation to a 26 years old primi female via Normal vaginal delivery, with the birth weight of 2.8 kg. Cried immediately after birth. Immediate post natal period was uneventful and was started on breastfeeding.

On Postpartum day 8 mother developed vesicular eruptions with red base, first noticed on trunk with low grade fever, which resolved in 4- 5 days

On Day 20 of life mother noticed similar lesions on baby which first involved face and trunk and eventually involved most parts of body. This was followed by blistering of lesion and peeling of skin by day 4 of illness, with this condition child was admitted at our centre. There was diffuse peeling of skin which lead to exposed raw area. At presentation at our centre, HR - 162, RR- 56, SpO2- 96% at room air, CRT- more than 3 seconds, temperature - 98.2°F,

Fluid bolus of Normal Saline at 10ml/kg was given.

Diagnosis of Neonatal Varicella with SSSS was made on clinical grounds, Inj Meropenem, Inj Vancomycin, Inj Acyclovir was given, each for 14 days and dressing with Mupirocin ointment was done.

On Day 4 of hospital admission, blisters started to heal and child improving.

DISCUSSION

"Neonatal varicella is typically contracted during the perinatal period. Symptoms usually emerge within 2-12 days after birth. The incubation period ranges from 10 to 23 days. In the case presented here, the infant's infection was maternally transmitted."

The diagnosis of neonatal varicella is typically made based on characteristic clinical presentation. The most frequent complication of varicella is secondary bacterial infection of the skin and soft tissues.

In patients with varicella, bacterial superinfections are facilitated by disruption of the skin barrier and potentially by transient virus-induced alterations in local immunity. Staphylococcus aureus and Group A Streptococcus are commonly responsible for skin and soft tissue infections, as well as invasive infections, which can involve toxin production. Notably, toxins such as TSS toxin 1 and superantigenic toxins can manifest as Toxic Shock Syndrome (TSS), while Exfoliative toxins A and B can cause Bullous Impetigo and Staphylococcal Scalded Skin Syndrome (SSSS). Our patient developed SSSS concurrently with septicemia, likely due to dissemination of exfoliative toxin.The diagnosis of SSSS is typically based on clinical presentation and/or histological findings. Treatment involves prompt initiation of antibiotics and supportive skin care. In this case, the patient received intravenous fluids, Injection Vancomycin, Meropenem, and Acyclovir. Mupirocin ointment was applied to raw skin surfaces. Gradually baby improved and was discharged.

TAKE HOME MESSAGE

Post natal varicella is not always benign and one should monitor the development of rare but fatal bacterial complications such as SSSS, TSS and Septic Shock.

Neonates exposed to varicella should be considered for specific immunoglobulin or Acyclovir prophylaxis.

REFERENCES

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