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HIV DETECTED IN THE FAMILY RETROSPECTIVELY THROUGH CHILDREN: A RARE CASE REPORT

Medical Microbiology

Mayank Sharma Junior Resident, Department of Microbiology, Shri Lal Bahadur Shastri Government Medical College Mandi

Sunite A Ganju Professor and Head, Department of Microbiology, Shri Lal Bahadur Shastri Government Medical College Mandi

Rajender Singh Assistant Professor, Department of Microbiology, Shri Lal Bahadur Shastri Government Medical College Mandi

Lata R Chandel Assistant Professor, Department of Microbiology, Shri Lal Bahadur Shastri Government Medical College Mandi

RC Guleria Associate Professor, Department of Microbiology, Shri Lal Bahadur Shastri Government Medical College Mandi

Noopur Thakur Junior Resident, Department of Microbiology, Shri Lal Bahadur Shastri Government Medical College Mandi

ABSTRACT

This case report presents a retrospective detection of HIV within a family, initiated by the diagnosis of a two-and-a-half-year-old girl with chronic diarrhoea. Further screening revealed HIV-positive status in both parents and a sibling, highlighting the importance of comprehensive family testing. The case underscores critical gaps in antenatal care as the HIV testing during pregnancy was missed. Finding the HIV early and starting its treatment quickly can greatly lower the chance of a mother to child transmission of virus. Strengthening the implementation of national guidelines under the PPTCT (Prevention of parent to child transmission) program through awareness, accessible antenatal services, and proactive family-based screening is the key to eliminate paediatric HIV in India.

KEYWORDS

HIV, ICTC, Retrospective Detection

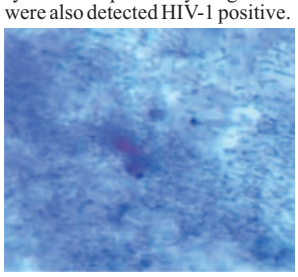
INTRODUCTION

The perinatal transmission of HIV ranges from 15% to 40% without intervention but it can be reduced to 1–5% with timely antiretroviral therapy (ART) during pregnancy, delivery, and breastfeeding[1]. A two-and-a-half-year-old girl presented with chronic diarrhoea and was found to be HIV positive, thus prompting further family testing. Her parents and sibling also tested positive for HIV, indicating perinatal and familial transmission[2]. This case highlights the importance of early detection, family-wide screening, and timely initiation of ART. Comprehensive intervention not only reduces the risk of further spread but also improves outcomes for all affected individuals, emphasizing a proactive approach to managing paediatric and familial HIV[3].

Case Presentation

A female child of labour class family recently migrated to

Himachal Pradesh from Bihar state , presented with low grade fever and diarrhoea for 10 days at Shri Lal Bahadur Shastri Government Medical College, Nerchowk. She also had the past history of recurrent diarrhoea and fever. Although the child was delivered in a healthcare facility in her home state, the mother did not undergo any antenatal check-ups or essential investigations during pregnancy. The child was thin built (weight-7.1kgs), pale (Hb-5.2gm/dl) and the mid upper arm circumference was <12.5cm. On examination, the parotid enlargement and oral thrush was seen in the patient. The initial diagnosis of Severe Acute Malnutrition with persistent diarrhoea with severe anaemia was made. Stool examination showed the trophozoites of Giardia on wet mount. Modified ZN stain, showed oocysts of Cystoisospora belli. Blood investigations revealed a positive result for HIV-1, confirming the presence of HIV infection. Additionally, the CD4 count was measured at 150 cells/µL, indicating a significantly weakened immune system. The patient's younger sibling and parents were counselled and were also detected HIV-1 positive.



ZN Stain: Cystoisospora belli

Iodine mount: Giardia

DISCUSSION

This case report underscores the critical importance of routine antenatal checkups and timely investigations during pregnancy, as recommended under the National Health Mission (NHM) and the National AIDS Control Organization (NACO) guidelines by the Government of India[4]. According to these guidelines, all pregnant women must be offered HIV testing and counselling as a part of their routine antenatal care[5]. Early identification of HIV in expectant mothers is crucial to prevent vertical (mother-to-child) transmission, which can occur during pregnancy, labor, delivery, or breastfeeding[6]. As per the current national guidelines, antiretroviral therapy (ART) must be initiated in all pregnant and breastfeeding women living with HIV, regardless of their CD4 count or WHO clinical staging. This aligns with the "Treat All" strategy adopted by India under its Test and Treat Policy, ensuring that every individual diagnosed with HIV receives lifelong ART immediately[7]. In addition, single-dose nevirapine prophylaxis for the newborn, exclusive breastfeeding for six months, and early infant diagnosis (EID) are integral components of the National Prevention of Parent to Child Transmission (PPTCT) program[8]. This case emphasizes the need for comprehensive family-based HIV screening, especially when a paediatric case is detected. It not only helps identify undiagnosed HIV-positive family members but also ensures early initiation of treatment, reducing further transmission. Strengthening the implementation of these national guidelines through community awareness, counselling, and robust health system support is essential for eliminating paediatric HIV and achieving India's goal of an HIV-free generation[9].

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REFERENCES

1. UNAIDS. (2020). Global HIV & AIDS Statistics – 2020 Fact Sheet. Retrieved from https://www.unaids.org
2. Pillay, Y., & Maharaj, B. (2017). The importance of family-based HIV testing and counselling in the management of HIV in South Africa. AIDS Care, 29(2), 142-148.
3. Prendergast, A. J., & French, N. (2016). HIV in children: Challenges in management and care. International Journal of Pediatric HIV, 6(4), 159-166.
4. National Health Mission (NHM). (2021). National Health Mission Operational Guidelines for HIV Services. Ministry of Health and Family Welfare, Government of India.

5. National AIDS Control Organization (NACO). (2019). National Guidelines for HIV Testing and Counseling. Ministry of Health and Family Welfare, Government of India.
6. Gao, L., et al. (2020). Vertical transmission of HIV in pregnancy and the role of antiretroviral therapy: A review of current clinical practices. BMC Pregnancy and Childbirth, 20(1), 420.
7. Zhang, X., et al. (2019). Perinatal HIV transmission in the era of antiretroviral therapy: Current perspectives. Clinical Medicine Insights: Pediatrics, 13, 1-9.
8. World Health Organization (WHO). (2016). Prevention of Mother-to-Child Transmission of HIV: The WHO Approach. WHO Press.
9. Sackoff, J. E., & Howard, G. (2018). HIV in children and the role of family-wide testing and counseling. American Journal of Public Health, 108(2), 226-231.