

National AIDS Control Organization (NACO) in India adopted the option B+ PMTCT guidelines recommended by WHO for public sector in India in 2013 [3]. However, India has the largest private healthcare system in the world with over 80-85% physicians practising in the private sector [4]. Thus, to achieve the goal of eliminating pediatric HIV, it is important that the private sector is also involved in management of HIV-infected women and children.

The antiretroviral drugs are currently procured by NACO from the pharmaceutical companies based on the bid process [5]. However, physicians in private sector prescribe the medication that is then dispensed by the chemist. Unfortunately, in the last few months, the pharmaceutical companies have gradually stopped manufacturing the pediatric formulations. Initially, syrup formulations of AZT, lamivudine (3TC), nevirapine (NVP) and lopinavir/ritonavir (LPVr) were available in India and fixed drug combinations (FDC) of stavudine (d4T) and 3TC were available. However, currently, no liquid formulation of AZT, 3TC and NVP or the FDC are available in the private sector. The other NRTI like TDF and abacavir (ABC) are available only as adult formulations. Moreover, as part of PMTCT, if a baby has to be prescribed AZT or NVP, we are back to good old days of pulverising the adult tablet of NVP (200 mg) into 6 mg sachet and dispensing to the newborn. Thus, currently we are left with no pediatric formulation of antiretrovirals except for LPVr. This has created an immense problem in treating HIV-exposed and infected children. This had led to even delay in starting the NVP prophylaxis in HIV-exposed infants while the parents search for the pediatric formulation.

Thus, in order to achieve the goal of “Getting to zero”, it is imperative that pediatric formulations are available for all. We seem to be heading towards the initial days of HIV epidemic – where drugs were just not available. With this grim scenario as the ground reality, it would not be unusual to expect a rise in pediatric HIV in the near future.

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REFERENCES

1. World Health Organization (WHO). Guideline on When to Start Antiretroviral Therapy and on Pre-exposure Prophylaxis for HIV. September 2015, Geneva. Available from: http://apps.who.int/iris/bitstream/10665/186275/1/9789241509565_eng.pdf?ua=1. Accessed June 2, 2016.
2. World Health Organization (WHO). Use of Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants. April 2012, Geneva. Available from: http://apps.who.int/iris/bitstream/10665/70892/2/WHO_HIV_2012.6_eng.pdf. Accessed June 2, 2016.
3. National Aids Control Organization (NACO). Prevention of Parent to Child Transmission (PPTCT) of HIV using Multi Drug Anti-retroviral Regimen in India. December 2013, New Delhi. Available from: http://naco.gov.in/upload/NACP%20-%20IV/18022014%20BSD/National_Guidelines_for_PPTCT.pdf. Accessed June 2, 2016.
4. Loh LC, Ugarte-Gil C, Darko K. Private sector contributions and their effect on physician emigration in the developing world. *Bull WHO*. 2013;91:227-23.
5. National Aids Control Organization (NACO). Available from: http://www.naco.gov.in/upload/2015%20MSLNS/Minutes_of_the_Pre-bid_meeting_ARV_Paediatric-08-2015.pdf. Accessed June 2, 2016.

Bystander Cardio-Pulmonary Resuscitation Saves Life in a Patient with Short QT Syndrome

The short QT syndrome (SQTS) is a primary cardiac electrical disease characterized by abnormally short QT intervals and an increased propensity to develop arrhythmias. It is a relatively recent addition to the list of inherited channelopathies responsible for sudden cardiac death (SCD). Gussak, *et al.* [1] first described SQTS in 2000, and about 70 cases are reported till now.

A 10-year-old boy, resident of Delhi, suddenly fell unconscious, was not responding, not breathing and

quickly turned blue and cold at home. His uncle, an officer with city police, was trained to carry out cardio-pulmonary resuscitation (CPR). He immediately started CPR, and approximately after 7 cycles of CPR, child was revived. At arrival to our hospital, he was stable with normal vital signs and consciousness. ECG done revealed QT/QTc interval of 280ms/305ms. His electrolytes, magnetic resonance imaging brain, electroencephalography and thyroid profile were normal. Repeat ECG at heart rate of 60 revealed QT interval 280ms and J point to T-wave peak interval of 200ms (**Fig. 1**). Family history was negative for SCD. We placed an implantable Cardio-defibrillator (ICD).

A short QT interval is usually considered if QTc is <340ms. However, there is an overlapping range of QT

intervals between affected individuals and apparently healthy subjects. Gollob, *et al.* [2] proposed a diagnostic criterion for SQTS. SQTS is mostly seen in males and common presentation is aborted SCD (24-32%), arrhythmias and syncope [3]. As the risk of SCD is high in SQTS, ICD placement is strongly recommended for secondary prevention. However, role of ICD in primary prevention is not well defined. Information regarding pharmacological therapy for SQTS is fairly limited, and quinidine has been suggested as one of the therapies. SQTS is considered a rare electrical abnormality associated with SCD in individuals with structurally normal heart. Timely diagnosis and optimal treatment can significantly improve the overall prognosis of the patient and family members. There is a scarcity of data about SQTS in terms of its clinical presentation, diagnosis, genotype-phenotype correlation, risk-stratification and treatment. This case aptly highlights the importance of bystander CPR in saving life in such disorders. Basic life support education should be promoted widely to save many more lives.

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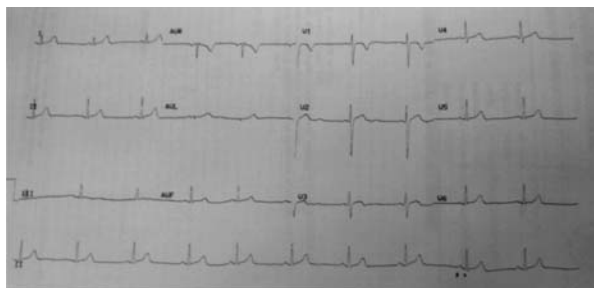


FIG. 1 ECG done at HR-60/min showing QT interval of 280ms.

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REFERENCES

1. Gussak I, Brugada P, Brugada J, Wright RS, Kopecky SL, Chaitman BR, *et al.* Idiopathic short QT interval: a new clinical syndrome? *Cardiology.* 2000;94:99-102.
2. Gollob MH, Redpath CJ, Roberts JD. The short QT syndrome: Proposed diagnostic criteria. *J Am Coll Cardiol.* 2011;57:802-12.
3. Villafañe J, Atallah J, Gollob MH, Maury P, Wolpert C, Gebauer R, *et al.* Long-term follow-up of a pediatric cohort with short QT syndrome. *J Am Coll Cardiol.* 2013;61:1183-91.

Immune Thrombocytopenia Following Diphtheria-Pertussis-Tetanus and Oral Polio Vaccine

Post-vaccination immune thrombocytopenia has been reported to occur with a number of vaccines, of which mumps measles and rubella (MMR) vaccine appear to be most common. We report a case of immune thrombocytopenia following concurrent immunization with diphtheria-pertussis-tetanus (DPT) and oral polio (OPV) vaccines.

A 3.5-month-old boy presented with generalized purpuric rash appearing six days following immunization with third dose of DPT and OPV. There was no history of any rash after previous doses of the same vaccines. On examination, there was non-blanching reddish macular rash over trunk and extremities, but no associated fever, lymphadenopathy, hepatosplenomegaly, sternal tenderness or external bleeding manifestations. Investigations revealed a hemoglobin level of 12.4 g/dL, total leucocyte count $11.3 \times 10^9/L$ (neutrophil 52%, lymphocyte 45%,

eosinophil 2%), and platelet $8 \times 10^9/L$. Liver and renal function tests were normal, and tests for anti-nuclear antibody were negative. Peripheral smear examination revealed no significant abnormality. Bone marrow examination showed normal granulocytic and erythrocytic series, with increased numbers of megakaryocytes. The child was treated with a single dose of intravenous immunoglobulin (1g/kg). The rashes gradually disappeared after 3-4 days. Within 3 days, platelet count increased to $52 \times 10^9/L$ with complete normalization occurring within 7 days. On follow-up, patient was healthy and booster dose of DPT/ OPV at 18 months of age was uneventful.

Immune thrombocytopenic purpura (ITP) is generally rare after immunization. In a study from Canada, 75% of such cases followed a measles-containing vaccine [1]. DTP or OPV vaccines are less commonly associated with ITP. Arya, *et al.* [2] reported thrombocytopenic purpura following DPT vaccination. In their retrospective series of 20 cases, Hsieh, *et al.* [3] also reported 4 cases of ITP after the first dose of diphtheria-tetanus-acellular pertussis-containing vaccine in early infancy. Other authors [4,5] have also