

However, more robust experimental studies are needed to support the early findings obtained from our study before we recommend replacing supplemental vitamin D with sunlight exposure during infancy.

*Additional comment:* There has been a misinterpretation of our study in the accompanying editorial [3]. Authors have commented “The authors advised mothers to expose their newborns to sunshine for a duration of six months, when the association between duration and timing of the sunshine exposure and serum 25(OH)D was analyzed.” [3]. Our study was purely an observational study, and no advice regarding sun exposure was given during the study.

## Congenital Junctional Ectopic Tachycardia in a Neonate

Congenital Junctional ectopic tachycardia (JET) is a rare and usually incessant tachyarrhythmia that presents in the first few months of life. In the past, treatment of congenital JET was difficult, and the condition was associated with a high mortality [1]. However, with the evolution of amiodarone as the first line of pharmacological management, the outlook for infants with this disorder has improved [2]. We report a neonate with congenital JET who had an incessant arrhythmia, and was managed on a combination of amiodarone and propranolol.

A late pre-term (34 weeks 6 days) baby was delivered *via* emergency cesarean section. A routine antenatal scan had documented a heart rate of 210/minute and fetal ascites. The liquor volume was normal. Clinical examination of the infant showed a pulse rate of 210/min with good peripheral pulses and normal peripheral perfusion. The respiratory system examination, cardiac examination and abdomen were normal. Echocardiogram revealed a structurally normal heart except for a persistent small atrial communication shunting left to right. The ventricular contractility was preserved on subjective assessment.

The electrocardiogram (ECG) showed a narrow complex regular tachycardia with a heart rate of 200/minute (**Fig. 1**). There was evidence of atrio-ventricular (A-V) disassociation with an atrial rate of 150/minute. A diagnosis of congenital JET was made and the baby was started on propranolol at a dose of 1 mg/kg/dose four times a day. There was no suppression of tachycardia in

AASHIMA DABAS AND

\*PIYUSH GUPTA

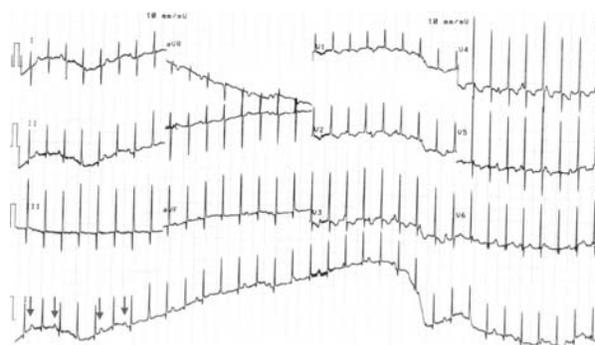
prof.piyush.gupta@gmail.com

### REFERENCES

1. Meena P, Dabas A, Shah D, Malhotra RK, Madhu SV, Gupta P. Sunlight exposure and vitamin D status in breastfed infants. *Indian Pediatr.* 2017;54:105-11.
2. Munns CG, Shaw N, Kiely M, Specker BL, Thacher TD, Ozono K, *et al.* Global Consensus Recommendations on prevention and management of nutritional rickets. *Horm Res Paediatr.* 2016;85:83-106.
3. Goswami R, Sachdev HPS. Vitamin D sufficiency through sunshine in infants? *Indian Pediatr.* 2017;54:103-4.

48 hours although the baby remained hemodynamically stable. Hence amiodarone was added at a dose of 10 mg/kg/day followed by a maintenance dose of 5 mg/kg/day. After 4 days of treatment, a satisfactory rate control with reduction of the junctional rate to approximately 120/minute was achieved and the child was discharged on the combination of amiodarone and propranolol.

Congenital JET is a rare neonatal arrhythmia that was first reported by Coumel, *et al.* [3]. It is caused by abnormal automaticity of the A-V node. The ECG typically manifests as a narrow-complex tachycardia with evidence of A-V disassociation or 1:1 retrograde V-A condition. JET with onset in the first few weeks of life is more likely to be incessant or sustained (>50% of QRS complexes) with a high risk of congestive cardiac failure [1,2,4]. Most children require a combination of anti-arrhythmic medications, with amiodarone the most commonly used [2]. Complete or partial control of



**FIG. 1** ECG showing a regular narrow complex tachycardia with a heart rate of 200/minute and evidence of A-V dissociation. The arrows denote p waves which do not have a consistent relationship with the QRS complexes.

arrhythmia is possible in only about one-third of cases.

\***MANI RAM KRISHNA AND USHA NANDHINI SENNAIYAN**  
*RK Hospital for Women and Children, Thanjavur.*  
*\*mann\_comp@hotmail.com*

#### REFERENCES

1. Villain E, Vetter V, García JM, Herre J, Cifarelli A, Garson A. Evolving concepts in the management of congenital junctional ectopic tachycardia. A multicenter study. *Circulation*. 1990;81:1544-9.
2. Collins KK, Van Hare GF, Kertesz NJ, Law IH, Bar-Cohen

Y, Dubin AM, *et al.* Pediatric nonpost-operative junctional ectopic tachycardia: medical management and interventional therapies. *J Amer Coll Cardiol*. 2009;53:690-7.

3. Coumel P, Fidelle JE, Attuel P, Brechenmacher C, Batisse A, Bretagne J, *et al.* [Congenital bundle-of-his focal tachycardias. Cooperative study of 7 cases]. *Arch Mal Coeur Vaiss*. 1976;69:899-909.
4. Sarubbi B, Musto B, Ducceschi V, Cavallaro C, Vecchione F, Musto C, *et al.* Congenital junctional ectopic tachycardia in children and adolescents: a 20 year experience based study. *Heart*. 2002;88:188-90.

## Sunlight Exposure and Vitamin D Status in Breastfed Infant

I read with interest the recent article by Meena, *et al.* [1] published in *Indian Pediatrics* which concluded that there is a significant positive correlation between afternoon sunlight exposure and infant's vitamin D levels, independent of maternal vitamin D status. We appreciate that it was the first study of its kind for Indian infants, which could estimate the duration of sun exposure required to achieve sufficient vitamin D levels in breastfed infants at 6 months of age. These findings are important in the present scenario given the recommendation by American Academy of Pediatrics to supplement 200-400 IU/d of oral vitamin D to all newborns till 1 year of age.

But the prime limitation of cost of therapy in low income countries and poor adherence rates to supplementation in both high- and low-income countries precludes the optimization of its use in neonates. This trial was need based and addressed a very important and clinically relevant issue. However, we have few concerns related to the article.

Vitamin D level were measured using radioimmunoassay whose sensitivity is considered to be inferior as compared to tandem mass spectrometry which is now considered to be the 'gold standard' for measuring serum 25(OH)D levels. This should appear as limitation of this study [2].

In Table II of the article, the coefficient of determination is highest for morning sun index *i.e.* model II ( $R^2=0.367$ ) followed by afternoon sun index *i.e.* model III ( $R^2=0.354$ ), and least in cumulative sun index *i.e.* model I ( $R^2=0.337$ ). Hence, according to this table, model II is superior to model I and III – contrary to the results mentioned by the author in result and discussion section.

**TAPAS BANDYOPADHYAY**

*Department of Neonatology,  
 Superspeciality Pediatric Hospital  
 and Postgraduate Teaching Institute,  
 Noida, India  
 dr.tapasbanerjee@gmail.com*

#### REFERENCES

1. Meena P, Dabas A, Shah D, Malhotra RK, Madhu SV, Gupta P. Sunlight exposure and vitamin D status in breastfed infants. *Indian Pediatr*. 2017;54:105-11.
2. Huynh J, Lu T, Liew D, Doery JC, Tudball R, Jona M, *et al.* Vitamin D in newborns. A randomised controlled trial comparing daily and single oral bolus vitamin D in infants. *J Paediatr Child Health*. 2016. doi: 10.1111/jpc.13338. [Epub ahead of print]

#### AUTHORS' REPLY

We thank the authors for the interest in our article [1], and for highlighting these points. We agree on the superiority of tandem mass spectrometry (TMS) over radioimmunoassay for vitamin D estimation. We could not measure vitamin D using TMS due to logistic concerns, and this can be considered as a limitation of our study.

$R^2$  was maximum in model 3 (afternoon sun index), as also mentioned in text 'Maximum  $R^2$  (0.367) was achieved in Model 3 when afternoon sun index replaced cumulative sun index in the model. We regret the printing error in the table where values of morning and afternoon Sun index got interchanged.

**AASHIMA DABAS AND \*PIYUSH GUPTA**  
*\*prof.piyush.gupta@gmail.com*

#### REFERENCES

1. Meena P, Dabas A, Shah D, Malhotra RK, Madhu SV, Gupta P. Sunlight exposure and vitamin D status in breastfed infants. *Indian Pediatr*. 2017;54:105-11.