

# Not All Shocks Need Inotropes - Hypertrophic Cardiomyopathy

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## 1. Background

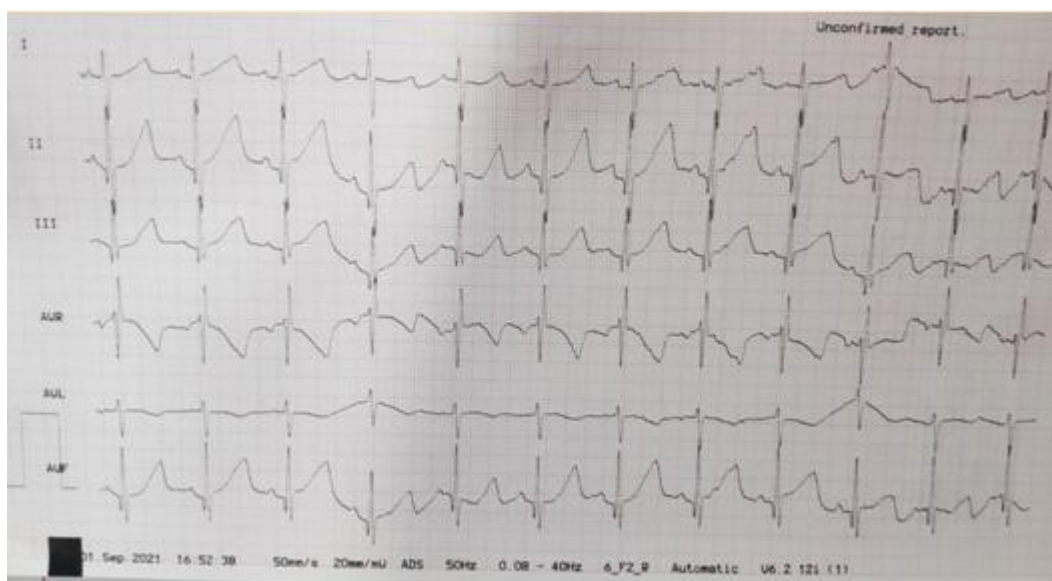
- Cardiomyopathies are a heterogeneous group of diseases of the myocardium associated with mechanical and/or electrical dysfunction. (1)
- The etiology is unknown but most commonly mediated by inflammation, autoimmune processes, endothelial dysfunction, and oxidative stress. (2)
- The annual incidence of cardiomyopathy is 1 per 100,000 live birth children amongst this incidence of hypertrophic cardiomyopathy is 0.47/100,000 in children.(3) (4).



Image 1: 2D ECHO showing BVH



**Video 1:** 2DEHO showing BVH



**Image 2:** ECG showing BVH

## 2. History

- A 7 days old out born 2.2kg Male baby born to G3A1L1 mother at 32 weeks gestation age, delivered via LSCS in view of premature labour pains.
- RDS at birth settled in three days. On day 7 had some feed intolerance and poor perfusion for which he was started on inotropes, which worsened the condition and was referred

## 3. Examination

- Heart rate and respiratory rate of 185bpm and 68/min respectively, SpO<sub>2</sub> of 92% on O<sub>2</sub> by nasal prongs his peripheries were cold.
- On examination bilateral equal air entry was present

with mild retractions.

- S1S2 were present with no audible murmur, peripheral pulses were feeble and CRT was >3 sec.
- Rest examination was normal.

## 4. Conclusion

- With this learning we can conclude that in cases with signs of poor perfusion the decision of starting of inotropes should be done under the guidance of echocardiography, also point of care

## 5. Treatment

- In view of respiratory distress baby was connected to NIMV (6/18/30%).

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- There was signs of poor perfusion, 2D ECHO was done which suggestive of biventricular hypertrophy.
- Inotropes were stopped.
- Propranolol was started.
- Baby discharged at day 12 of life.

## 6. Investigation

- Chest X-ray: Normal
- 2D ECHO was done which showed biventricular hypertrophy, mild LV mid cavity gradient, peak-18mmHg, LV wall thickness Z-Score >2.
- ECG: Biventricular hypertrophy.
- TMS and GCMS was normal.

## References

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