

Regimen	Loading dose	Maintenance dose
Pritchard's ⁴	20 ml of 20% (4 gm) slow in 3-5 min; +10ml of 50% (5 gm) deep IM* on each buttock (10 gm)	10 ml of 50% (5 gm) deep IM on alternate buttock every 4h

blood pressure and protein levels remain within the normal range.

The mainstay in patients visiting the Emergency department with seizure is maintaining the airway and circulation of the patient. Supplemental oxygen to prevent hypoxic brain injury is important. The drug of choice for eclamptic seizure is magnesium sulfate.¹³ The most common regime followed in the Indian subcontinent is the "Pritchard's regime" (as described above). The mainstay in this treatment is the check for magnesium toxicity level before administration of magnesium sulfate every 4 hourly. Signs of magnesium toxicity include decrease in blood pressure, decrease in urine output production, decreased respiratory rate, absent/reduced patellar reflex.

While rare, seizure activity resistant to magnesium sulfate, or with recurrence following a second magnesium bolus, the treatment of choice is benzodiazepines. The recent reviews recommending dosing 4 mg lorazepam over 3 to 5 minutes.⁵ In cases where magnesium sulfate is unavailable or there is a delay in preparation, patients can be initiated on benzodiazepine therapy with intravenous diazepam or lorazepam or intramuscular midazolam.¹⁴

REFERENCES

- Rui P KK, Albert M. National Hospital Ambulatory Medical Care Survey: 2013 Emergency Department Summary Tables.
- Robinson DW, Anana M, Edens MA, et al. Training in Emergency Obstetrics: A Needs Assessment of U.S. Emergency Medicine Program Directors. *West J Emerg Med.* 2018;19(1):87-92.
- Bollig KJ, Jackson DL. Seizures in Pregnancy. *Obstet Gynecol Clin North Am.* 2018;45(2):349-367.
- Hart LA, Sibai BM. Seizures in pregnancy: epilepsy, eclampsia, and stroke. *Semin Perinatol.* 2013;37(4):207-224.
- Fishel Bartal M, Sibai BM. Eclampsia in the 21st century. *Am J Obstet Gynecol.* 2020.
- Zack MM, Kobau R. National and State Estimates of the Numbers of Adults and Children with Active Epilepsy - United States, 2015. *MMWR Morb Mortal Wkly Rep.* 2017;66(31):821-825.
- Gestational Hypertension and Preeclampsia: ACOG Practice Bulletin, Number 222. *Obstet Gynecol.* 2020;135(6):e237-e260.
- American College of O, Gynecologists' Committee on Practice B-O. ACOG Practice Bulletin No. 203: Chronic Hypertension in Pregnancy. *Obstet Gynecol.* 2019;133(1):e26-e50.
- Sibai BM. Diagnosis, prevention, and management of eclampsia. *Obstet Gynecol.* 2005;105(2):402-410.
- Chames MC, Livingston JC, Ivester TS, Barton JR, Sibai BM. Late postpartum eclampsia: a preventable disease? *Am J Obstet Gynecol.* 2002;186(6):1174-1177.
- Lopez-Llera M. Main clinical types and subtypes of eclampsia. *Am J Obstet Gynecol.* 1992;166(1 Pt 1):4-9.
- Aya AG, Ondze B, Ripart J, Cuvillon P. Seizures in the peripartum period: Epidemiology, diagnosis and management. *Anaesth Crit Care Pain Med.* 2016;35 Suppl 1:S13-S21.
- Lucas MJ, Leveno KJ, Cunningham FG. A comparison of magnesium sulfate with phenytoin for the prevention of eclampsia. *N Engl J Med.* 1995;333(4):201-205.
- The Eclampsia Trial Collaborative G. Which anticonvulsant for women with eclampsia? Evidence from the Collaborative Eclampsia Trial. *The Lancet.* 1995;345(8963):1455-1463.

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The Adult! Blue Baby

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How to cite this article:

Ketan D Patel, Rignesh Patel, Shikha Patel, *et.al.*/The Adult! Blue Baby/Indian J Emerg Med 2023;9(3):83- 84.

Abstract

Central cyanosis is common clinical presentation in neonates and infants which is highly associated with congenital heart diseases (CHD) but this presentation is very unusual in adults presenting only with fever. However, thinking of central cyanosis in adults can lead us to variety of causes ranging from pulmonary embolism to valvular heart defects as well as arteriovenous malformation and poisoning. Through clinical evaluation and point of care echocardiography gives the insight of unusual diagnosis.

Keywords: Fever; Cyanosis; Pan systolic murmur; Congenital Heart Disease; Tetralogy of fallot (ToF); Echocardiogram.

CASE DESCRIPTION

A 27 years old cachexia female with no significant comorbidities, presented with complaints of fever and generalized weakness. Her vitals showed Temp 100.2°F; HR 152/min; RR 30/min; SpO₂ 60% Room Air; BP 150/100mmHg; RBS 136mg/dL; GCS E4V5M6. General examination showed dehydration, clubbing, peripheral and central cyanosis, cold peripheries and CRT >3 seconds. Cardiovascular examination suggested pansystolic murmur and the rest of the examination

findings were unremarkable. Electro cardiography showed sinus tachycardia with P. Pulmonale. Echocardiography suggested membranous ventricular septal defect (VSD) with right to left shunt, right atrial and ventricular dilatation, severe pulmonary valve stenosis and overriding aorta with pulmonary artery atresia with preserved heart function. Blood tests showed Haemoglobin 21 g/dl, Arterial Blood Gas pO₂ 36.9 mmHg and rest were unremarkable. Patient was diagnosed with Tetralogy of Fallot (ToF). Patient had history of tooth extraction 1 month back followed by fever. In view of persistent fever, blood cultures were sent 72 hours apart which were both positive for streptococcus oralis and mitis suggestive of Infective Endocarditis (IE). Patient was medically managed and planned for surgical repair.

DISCUSSION

Diagnosis of ToF is very rare in adults where survival rate is around 25% in age above 10 years and only around 3% in age above 40 years. IE is one of the precipitating factors for ToF. The risk of

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Received on: 06-03-2023

Accepted on: 04-04-2023

IE in cyanotic CHD is six times more compared to acyanotic CHD. Incidence of IE in corrected ToF is 18% whereas in undiagnosed ToF is only around 4%. 86% adults have 36 years survival rate who underwent surgical repair for ToF. Adulthood surgical management has higher risk of developing arrhythmias, heart failure, and sudden cardiac arrest compared to the corrected cases in childhood.

CONCLUSION

Through physical examination and early echocardiography in neonates and infants presenting with cyanotic spells will significantly decrease the risk of ToF remaining undiagnosed till adulthood. Factors leading to delayed presentation of ToF can be attributed to mild symptoms and lack of patient and family awareness. People with repaired ToF have some restrictions on certain strenuous activities, such as competitive sports. Survivors of ToF repair, face not only the complex medical issues but also social and psychological challenges which impacts on their quality of life.

REFERENCES

1. Tetralogy of Fallot. Apitz C, Webb GD, Redington AN. *Lancet*. 2009;374:1462-1471.
2. "Tetralogy of Fallot" and Etienne-Louis Arthur Fallot. Evans WN. *Pediatr Cardiol*. 2008;29:637-640.
3. Current outcomes and treatment of tetralogy of Fallot. van der Ven JG, van den Bosch E, Bogers AC, Helbing WA. *F1000Res*. 2019;8:1000-1530.
4. Risk factors for arrhythmia and sudden cardiac death late after repair of ToF: a multicentre study. Gatzoulis MA, Balaji S, Webber SA, et al. *Lancet*. 2000;356:975-981.
5. Tetralogy of Fallot in adults. A report on 147 patients. Abraham KA, Cherian G, Rao VD, Sukumar IP, Krishnaswami S, John S. *Am J Med*. 1979;66.
6. Life expectancy without surgery in tetralogy of Fallot. Bertranou EG, Blackstone EH, Hazelrig JB, et al. *Am J Cardiol*. 1978;42:458-466.
7. Cyanotic tetralogy of Fallot in a 77 year old man. Thomas SH, Bass P, Pambakian H, Marigold JH. *Postgrad Med J*. 1987;63:361-362.
8. Tetralogy of Fallot in the elderly. Chin J, Bashour T, Kabbani S. *Clin Cardiol*. 1984;7:453-456.
9. Total correction of tetralogy of Fallot in adults-surgical experience. Rammohan M, Airan B, Bhan A, et al. *Int J Cardiol*. 1998;63.
10. Risk factors for arrhythmia and sudden cardiac death late after repair of tetralogy of Fallot: a multicentre study. Gatzoulis MA, Balaji S, Webber SA, et al. *Lancet*. 2000;356.
11. Surgical repair of tetralogy of Fallot in adults today. Dittrich S, Vogel M, Dähnert I, Berger F, Alexi-Meskishvili V, Lange PE. *Clin Cardiol*. 1999;22:460-464.