

Cyanotic Spells in Children- Mini Review

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Abstract

Objectives: This article gives information about cyanotic spells in children, for the patient's parent, also it will help the pediatric cardiologist during parents counselling:

- Identification of the cyanotic spells
- Physiology of cyanotic spells
- Sign and symptoms of cyanotic spells
- Management of cyanotic spells.

Conclusion: Cyanotic Spells can be life threatening if they are left untreated.

The patient may need medication or may require earlier surgery or cardiac catheterization.

Keywords: Cyanotic Spells; Children; Cardiac Catheterization

What is cyanosis? [1-3]

Cyanosis is a bluish discoloration can be recognized on the lips and nail beds.

This can be seen in patients with certain types of heart problems and called a cyanotic or 'blue' spell.

Cyanotic spells more likely to occur in tetralogy of fallot.

How does cyanotic spells occur? [3,4]

When the patient has a heart problem, the blue (deoxygenated) blood will not to get to the lungs to pick up oxygen in the proper way. Some of the blue blood may also go to the left pumping chamber through the hole in the heart between the right pumping chamber and left pumping chamber.

The more blue blood goes round the body when the entrance to the pulmonary artery is narrower. So the blood being pumped around the body may not contain as much oxygen as it should, so gives the blue (cyanosed) appearance.

More deoxygenated (blue) blood will bypass the lungs, causing an increase in cyanosis during a cyanotic spell.

This spells can be triggered by many conditions which increase the demand of oxygen like:

- Irritability, cry or pain
- Diarrhea, having a bowel movement

- Dehydration
- Fever.

What are the symptoms cyanotic spells? [1,5-7]

During a cyanotic spell, the lips and skin of the baby will be more blue than usual with fast and deep breath sometimes. The child may become deep blue or grey, floppy and unresponsive.

How to deal with cyanotic spells? [1,5]

When the baby seems to have cyanotic spell:

- Reassure the baby and keep calm.
- Knee chest position, it is to bring baby’s knees up to their chest. So, the pressure of blood returning to the heart will increase and increase blood flow to the lungs.
- This position can be doing will the baby lying on the back or in parent arms, either facing away or towards the parent.



Figure 1



Figure 2



Figure 3

If the baby has a cyanotic heart disease, special care should be taken during hot weather to make sure the baby is well hydrated.

When the baby has vomiting and diarrhoea or develop a high fever, the baby needs to be seen by paediatrician.

When should call the doctor or seek medical attention? [3,4]

- If the cyanotic spell more than 5 minutes.
- If the baby deteriorated and becomes floppy and unresponsive or the parents are unable to wake them up.
- If the baby has a continuous grunting noise, noisy breathing, breathing difficulty or choking.
- If the baby's skin colour deep blue/grey.

Conclusion

In general, it is important to call doctor for advice if the baby has a cyanotic spell, even if it improves quickly. Because these spells can be life threatening if they are left without treatment.

The patient may need medication or may require earlier surgery or cardiac catheterization.

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