



The Child with a Murmur Guideline

Murmur auscultated in well child



HISTORY

- Symptoms: Dyspnea, reduced exercise tolerance, syncope/ chest pain with exertion
- PMH: Failure to thrive, known/ suspected genetic conditions
- FHx: Cardiomyopathy, significant congenital heart disease, sudden death

EXAMINATION

- General: dysmorphic features, poor growth, clubbing, abnormal vital signs, HTN in an upper limb (>20mmHg systolic BP difference UL+LL)
- Respiratory: bibasal creps
- Abdomen: hepatomegaly
- CVS: increased precordial activity, weak/ absent femoral pulses

FEATURES OF A PATHOLOGICAL MURMUR:

- Grade 3/6 + above
- Diastolic
- Harsh
- Assoc. thrill



GREEN FLAGS MURMUR FINDINGS

HISTORY

- Asymptomatic
- No feeding issues
- Well grown

EXAMINATION

- Peripheral exam completely normal

FEATURES OF AN INNOCENT MURMUR:

- Soft
- Systolic
- Non radiating
- Short
- Sensitive (to position and respiration)



Urgent review by local Paediatric Consultant +/- discussion with Cardiology Consultant on Call

If local consultant confident innocent murmur, no further action required; routine referral to cardiology OPD if any concerns

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Background Information

- Innocent murmurs are by definition those that are not associated with underlying heart disease (1)
- The majority of children will have a murmur audible at some point during childhood (2)
- The use of chest radiography and ECG is rarely useful in diagnosing heart disease in children with asymptomatic heart murmurs (4) (5)
- Exceptions to this rule include children with Down syndrome where an ECG can be useful even in asymptomatic patients for identifying atrioventricular canal defects through superior axis on an ECG (6)

References

1. Rosenthal A. How to distinguish between innocent and pathologic murmurs in childhood. *Pediatr Clin North Am* 1984;31:1229-1329.
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3. Birkebaek N H, Hansen L K, Oxhoj H. Diagnostic value of chest radiography and electrocardiography in the evaluation of asymptomatic children with a cardiac murmur. *Acta Paediatrica* 1995;84(12): 1379-81.
4. Gardiner S. Are routine chest x ray and ECG examinations helpful in the evaluation of asymptomatic heart murmurs? *Arch Dis Child* 2003;88(7):638-40.
5. Shashi V, Berry MN, Covitz W. A combination of physical examination and ECG detects the majority of haemodynamically significant heart defects in neonates with down syndrome. *Am Jour Med Gen* 2002; 108: 205-208.