

**Chest pain in children and adolescents : a frequent complaint**

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**Introduction :** Chest pain is a frequent presenting complaint in children and adolescents. It is frequently perceived by both children and parents as heart related, therefore causing a lot of worry and emotional upset. It frequently leads to referral to a pediatric cardiology outpatient clinic for more specific evaluation. In the pediatric population, chest pain is very rarely due to a heart problem. Noncardiac chest pain is by far the most common cause of chest pain in the pediatric population.

**Methods :** Retrospective review of all cases of chest pain referred to our pediatric cardiology outpatient clinic over a one year period (2011). Charts, ECG, Holter, echocardiography studies and exercise test results were reviewed.

**Results :** From January 1st to December 31st 2011, 82 patients presented with chest pain. The median age at presentation was 11 years old (range 4-17 years old). There were 36 boys and 46 girls. In 36 cases chest pain was the only complaint. In 60% of cases symptoms occurred with exercise. Patients were evaluated with ECG (n=82, 100%), Holter (n=16, 20%), R-test (n=6, 7%), echocardiography (n=81, 99%) and exercise stress test (n=35, 43%). In 17 patients chest pain was triggered and patients could be examined while being symptomatic. In 99% of patients chest pain was due to a noncardiac cause, of which 78% presented with musculo-skeletal or chest wall pain. Other noncardiac causes included hyperventilation and vasovagal malaise. In only 1% (8 patients) chest pain was due to a cardiac cause, of which 7 presented with an arrhythmia and 1 patient with signs of myocardial ischemia in the context of a severe aortic stenosis.

**Conclusion :** All patients presenting with chest pain warrant a thorough evaluation. In the vast majority of cases chest pain has a musculoskeletal origin. Reassuring both parents and patients about the benign nature of chest wall pain is of great importance. Although rare, a cardiac cause for chest pain should be sought for. It is most likely to be associated with abnormal cardiac findings and to occur upon exertion.