

Analysis of clinical characteristics and causes of chest pain in children and adolescents.

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Objectives: Chest pain is a common problem to visit pediatrician in children and adolescents and is the second most common symptom after cardiac murmurs which is referred to pediatric cardiologists. Serious diseases such as coronary ischemia are very rare in children and adolescents.

Although most of chest pain in children and adolescents are benign and need no treatment, timely diagnosis is important to not to miss several diseases that require prompt treatment.

Methods: To investigate diverse causes of chest pain in children and adolescents and to discriminate diseases that need further evaluation and prompt management of chest pain, retrospective medical records were reviewed during the period of July 2006–October 2013. A total of 517 patients of chest pain were referred to Department of Pediatrics, Kyung Hee University Hospital at Gangdong.

Results and Conclusions: Most of chest pain in children and adolescent was idiopathic or musculoskeletal origin (80.5%), followed by respiratory(10.7%), cardiac(4.5%), gastrointestinal(2.9%), psychiatric(1.4%). In case of respiratory disease, pneumothorax(4) and pneumomediastinum(2) was in 6 case(1.2%), and all the patients with pneumothorax had been done chest tube insertion. In such air-leak syndrome, the pain was abrupt, continuous and has short duration after the onset of 1-2 days in older adolescents. In the patients of pneumomediastinum, radiologic diagnosis was not easy without careful searching, therefore caution is required in patients with pain of these characters. In patients with pain of cardiac origin, 13 patients had cardiac arrhythmias(56.5%), 8 had congenital heart diseases(34.7%), 2 had coronary aneurysms caused by Kawasaki disease(8.7%). One patient with atrial flutter had symptoms of syncope and chest pain only. One should not neglect syncope and further work-up is essential.