

FT31

Screening Results Before Sport Participation: Single Center Experience

Melih Timuçin Doğan

Objective: There is a significant increase in the risk of sudden death in athletes with heart problems. Professional athletes with undiagnosed heart problems or rhythm disorders may encounter significant problems during competitive sports. The number of children engaged in professional sports is increasing rapidly in our country. The role and importance of family physicians in terms of licencing and consent for sport training at school is extremely important. Our aim in this study was to emphasize what we should pay attention to in the anamnesis and examination to give a sports consent.

Methods: All children who applied to our clinic in the last 6 months to receive sports consent were included in the study. Families were asked if the child had chest pain, palpitation, syncope and fatigue. She/He was also asked if she had a relative with a history of sudden cardiac death before 50 years of age. The demographic characteristics of children were recorded. A 12-lead ECG was recorded in all patients. Detailed echocardiographic examination and exercise test were performed.

Results: Children who applied for sports consent were between 6 and 18 years old. The median age was 12.39 ± 2.75 , the youngest and the oldest child was 6 and 18 years old, respectively. Of 122 children, 36 were female (29.5%) and 86 were male (70.5%). None of the children had a family history of sudden death before the age of 50. First degree AV block was found in the ECG of 2 children and atrial early beat was detected in the ECG of 1 child. Holter monitoring was performed for 24 hours. There were 206 atrial premature beats. Echocardiographic examination of 4 children revealed pathology; Three children had mitral valve prolapse and one child had arrhythmogenic right ventricular dysplasia (ARVD). Cardiac MRI was performed to the patient with suspected ARVD and the diagnosis was confirmed. In our study, we gave treatment by stating that it was not appropriate to do sports because of the risk of sudden cardiac death in only 1 out of 122 children.

Conclusion: A detailed history should be obtained from all families before giving a sports consent. Family history of sudden death and chest pain before age of 50 should be asked. Patients with syncope and chest pain should be referred to a pediatric cardiologist. Systemic examination of all children should be performed. Patients with murmur, systemic hypertension and absence of femoral pulse should be referred to a pediatric cardiologist. All children should have a 12-lead ECG, Qt distance should be calculated, rhythm should be checked, hypertrophy findings, ST-T changes should be evaluated; Children with pathologic ECG findings should be consulted to a pediatric cardiologist.