

Case Presentation for Hypertrophic Cardiomyopathy

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ABSTRACT

CASE HISTORY: The patient is a 21-year-old African American male basketball player. The patient has been involved with sports and athletics since his elementary years without suffering any cardiovascular issues. The patient had no significant issues in his medical history including any heart-related problems in his past. **PHYSICAL EXAM:** The patient initially presented no significant findings regarding his physical health until pre-participation exams identified cardiac abnormalities. **DIFFERENTIAL DIAGNOSES:** Hypertrophic cardiomyopathy; myocarditis, coronary artery disease; mitral valve prolapse; aortic stenosis. **TESTS & RESULTS:** The patient had an EKG and echocardiogram done, which detected hypertrophic cardiomyopathy. **FINAL DIAGNOSIS:** Hypertrophic cardiomyopathy. **DISCUSSION:** Hypertrophic cardiomyopathy (HCM) is a condition of the heart characterized by the thickening of the interventricular septum. Sudden cardiac death due to HCM-related causes is most prevalent in young African-American male athletes. Most patients with risk factors in these categories are strongly recommended to abstain from participating in sports with high physical demands. This case presents a 21-year-old African-American male athlete playing Division 1 basketball diagnosed with HCM, that did not report any symptoms related to a cardiac illness. **OUTCOME OF THE CASE:** Considering the athlete's medical history, and understanding the probabilities of a HCM-related episode occurring, the decision was made to implant an ICD prior to returning to athletic participation. An ICD is an Implantable Cardioverter Defibrillator, which is a device embedded underneath the skin to record and track the heartbeat. If the ICD detects an irregular heart rhythm, it will send an electrical shock to restore the heart's normal activity. The patient had the ICD implanted and returned to full participation by the start of the basketball season. **RETURN TO ACTIVITY AND FURTHER FOLLOW-UP:** He visited the cardiologist for a follow-up 6 months after the ICD implantation. Other treatments included periodic BP and pulse rate monitoring during physical activity and gradual physical conditioning before the preseason started.