



# Myocarditis

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Myocarditis presenting acutely is an inflammatory disease of the myocardium. The estimated incidence varies from 3 to 6% and a diagnosis is made difficult by the fact that myocarditis often presents subclinically and unexpectedly. It may well be a cause of sudden unexplained cardiac death, particularly in young people. While the principal etiology in developed countries is viral, the underlying cause may not easily be identified. Dr Kühl addresses the issue in detail in his article. Clinically, if a patient presents with a sudden onset of symptoms of chest pain or heart failure with or without arrhythmias, and when other causes have been excluded, myocarditis must always be considered, particularly if there is coexistent viral illness, for example influenza [1]. Alternatively, the patient may have been taking drugs that are known to be linked to hypersensitivity reactions, for example penicillin. There are no specific points in the examination of the patient, but there may well be signs of heart failure. The collection of physical signs and patient symptoms, combined with chest pain or the presentation of dyspnea that is not recognized to be reflecting ischemic heart disease, should alert the physician to the possibility of myocarditis as an etiology. Drs Cooper and El Amm elegantly discuss the management of myocarditis that takes these parameters on board. Importantly, they widen the differential diagnosis so that treatment can be precisely targeted at the cause [2].

Clearly, the differentiation of myocarditis from myocardial infarction is clinically immediately and subsequently important prognostically. The value of early and late immunosuppressive therapy is debated by Frustaci and Chimenti. They make the point that immunosuppressive therapy may be effective in a significant number of patients, as confirmed with endomyocardial biopsy, but it has always been difficult to differentiate an effective drug therapy from the natural history of the disease. Furthermore, immunosuppressive treatment of virus-positive myocarditis

has been associated with an adverse outcome and should be avoided in patients who do not exhibit biopsy-confirmed exclusion of viral invasion [3].

Although myocarditis is relatively uncommon, it can be quite devastating to the younger person, transforming them over a 24–48 hour period from physical fitness to major disability and even sudden death. In short, we desperately need a more reliable imaging technique. It is interesting to speculate as to whether trimetazidine, because of its metabolic action, may be an important drug in myocarditis as it has already proved to be an effective drug in cardiac failure patients [4].

Finally, we must not forget that there are other causes of myocarditis separate from viral illnesses. Whatever the cause, a complete survival rate has been documented in only 25–56% of cases. Mortality appears to be related to the manifestations of cardiomyopathy, particularly cardiac failure and sudden cardiac death. The implantable cardioverter defibrillator as well as anti failure treatment and anti-arrhythmic treatment does potentially, if initiated early, reduce the mortality rate. While there is more to myocarditis than the specific complication of a viral illness, this edition of *Heart and Metabolism*, as well as addressing the commonest cause of myocarditis (viral), also widens the arena not only to the alternative causes but how to detect and manage them. ■

## REFERENCES

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