INTRODUCTION
Association of viruses with myocarditis in children and adults has gained considerable importance and is a subject of recent important clinical reviews (Abelman, 1973; Lewes et al, 1974 and Lewes, 1976). Though histopathological lesions of myocardium in association with viral infections have been described (Gore and Saphir, 1947; Saphir, 1960 and Hudson, 1965), virological investigations are necessary to establish the aetiological relationship to the disease. Several viruses have been implicated in the development of myocarditis, but Coxsackie group B virus types have been shown to be more commonly associated with this disease (Lerner and Wilson, 1973; Hirschman and Hemmer, 1974 and Grist, 1977).

Even as early as 1959, experimental viral myocarditis has been produced in both young and adult mice by inoculation of Coxsackie B3 (Grodums and Dempster, 1959a and b). Studies on experimental myocarditis with Coxsackie B1, B2, B3, B4 and B5 (Grodums and Dempster, 1962), Coxsackie A9 (Lerner et al, 1962; Lerner and Shaka, 1962) and Coxsackie B5 (Miranda et al, 1973) have also been made. There is evidence that Coxsackie B3 induces specific heart lesions in adult mice (Grodums and Dempster, 1962) and pathological changes seem to persist over a prolonged period of time.
In several of these experiments, the replicating virus was not isolated beyond first week of infection, and it is felt that immunological reactions in these experimental animals may play a role in the limitation of the disease process or of damage to cardiac tissue.

Therefore, a comprehensive virological study of 50 cases of myocarditis in adults and children was carried out to find the exact incidence and role of Coxsackie B1-B6 viruses, Coxsackie A9, ECHO 9, influenza A and B viruses, mumps and cytomegaloviruses (12 viruses). In addition, the role of cell-mediated immunity in experimental Coxsackie B3 virus infection in guinea pigs was also studied.