



FIGURE 5-6 Echocardiographic examples of hypertrophic cardiomyopathy seen in long-axis (A) and short-axis (B) views. Notice the normal size of the left ventricular (LV) cavity and marked thickening of the interventricular septum (S) compared with posterior wall (P). In contrast, similar views of a patient with dilated cardiomyopathy (C and D) reveal a markedly enlarged LV cavity with diffuse wall thinning.

fibrillation may precipitate decompensated HF and may require specific therapy. Treatment of coronary artery disease with active ischemia, hypertension, or valvular disease may improve HF symptoms. Correction of concomitant medical problems (e.g., sleep-disordered breathing, pulmonary hypertension) may improve heart function.

Nonpharmacologic Treatment

All patients with HF should be encouraged to restrict sodium intake to about 2 g/day. Fluid intake should also be limited to avoid hyponatremia. Weight reduction by the obese patient helps to reduce the workload of the failing heart. A structured cardiovascular exercise program can reduce HF symptoms and improve functional capacity in most patients.

Pharmacologic Treatment

Table 5-4 lists all medications approved for HF and their dosing requirements.

Diuretics

Symptoms of volume overload are commonly seen in HF due to activation of the RAAS, and diuretics help to promote renal excretion of sodium and water and provide rapid relief of pulmonary congestion and peripheral edema. Loop diuretics, such as furosemide, torsemide or bumetanide, are the preferred agents in the treatment of hypervolemic HF due to their quick onset and rapid relief of symptoms by decreasing preload and lowering ventricular filling pressures. Unfortunately, there are no randomized, controlled trial data that support a mortality benefit for diuretics. Diuretics actually activate the RAAS and sympathetic nervous system, both of which can potentiate the progression of HF. The Diuretic Optimization Strategies Evaluation (DOSE) trial attempted to discern whether continuous intravenous administration of loop diuretics compared with intermittent bolus infusion would produce better outcomes for patients with acute decompensated HF. Results were equivocal according to