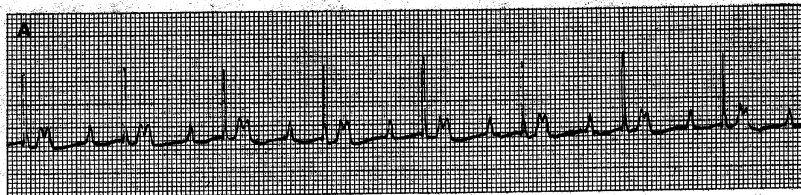


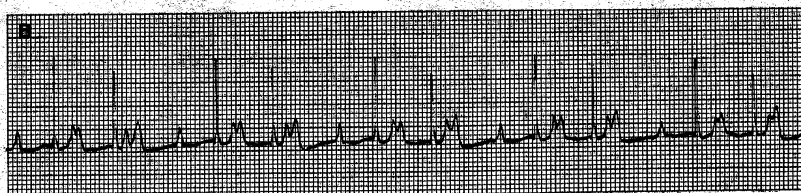
ECG Of The Month



Strip A is a monitor lead from a 62-year-old male admitted to a coronary care unit with retrosternal discomfort and an ECG showing an acute diaphragmatic myocardial infarction.

The rhythm in Strip A is 2:1 AV block, a form of

second degree AV block. The atrial rate is 94 and the ventricular rate is 47. Every other P wave is conducted at the ventricle with a PR interval of 0.46 seconds. The blocked P waves occur during the T wave, giving a notched appearance to the T wave.



2:1 AV block may represent either Wenchebach (Type I) second degree AV block, or Mobitz (Type II) second degree AV block. It is not possible to distinguish the two possibilities on Strip A alone, although Wenchebach variety or block in the AV node above the bundle of His can be favored on the basis of the marked prolongation of the PR interval and the normal QRS width. The mechanism is clarified in Strips B and C. Strip B shows 3:2 AV block. The PR interval of the first of the conducted beats is 0.46 seconds, and the PR interval of the second of the conducted beats is 0.50 seconds. The third P wave is blocked. Thus, this represents Wenchebach periodicity with progressive PR prolongation prior to the dropped beat. Strip C shows further improvement of conduction with only first

degree AV block and with a PR interval of 0.48 seconds.

These strips represent various manifestations of AV block at the level of the AV node which can be seen in patients with diaphragmatic or inferior myocardial infarction. In this case, there was progressively improved conduction, although in some patients there may be progression to complete AV block and either drug or pacemaker therapy may be necessary. In inferior myocardial infarction, however, complete heart block is usually transitory. Mobitz (Type II) second degree AV block with constant and usually normal PR interval prior to the dropped beat(s) is usually seen in anterior wall infarctions, and complete heart block, if it develops, is a more ominous event. □

PRIMARY CARDIOLOGY