

**AtrioVentricular Block in Contemporary Patients with Acute Myocardial Infarction.
Data from the Acute Coronary Syndrome in Israel (ACSIS) Survey**

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Background:

In prior reports High degree atrioventricular block (HDAVB) was a frequent complication of acute myocardial infarction (MI) and was associated with an increased morbidity and mortality. There are limited data of HDAVB in the current era of widespread and early use of PCI and in patients with Non ST elevation myocardial infarction (NSTEMI).

Aim:

To evaluate the incidence, predictors and prognostic significant of HDAVB in contemporary era.

Methods and results:

Patients with acute MI (n=11,487) from the Acute Coronary Syndrome Israeli Survey (ACSIS) during the years 2000-2010 were analyzed. Patients were divided into two groups: those with HDAVB (n=308) and those without (NHDAVB, n=11179). Overall the incidence of HDAVB decreased gradually from 4.2% in 2000 to 2.1% in 2010 (p for trend =0.0002). HDAVB was associated with women gender (32.1% vs. 23.2%, P<0.0001), Killip class \geq 2. Patients in the HDAVB group were more likely to develop in-hospital arrhythmic and mechanical complications. Independent predictors of HDAVB were older age, STEMI, smoking and Killip class \geq 2 on admission. The RCA was more frequently involved in the HDAVB group as compared to NHDAVB (69.1% vs. 32.2%, p<0.001)

The 30-days and 1 year mortality rates were significantly higher in the HDAVB as compared to NHDAVB group (24% vs. 4.9%, p<0.0001, 33.5% vs. 10%, p<0.0001, respectively). After adjustment for confounding variables - HDAVB was associated with increased 30-day (OR- 3.97; 95% CI- 1.96-8.04) and 1-year mortality risk (HR-2.02; 95% CI-1.3-3.16). Similar estimates were obtained for STEMI and NSTEMI

Conclusion:

Although the incidence of HDAVB decreased over the last decade the associated morbidity and mortality are still high in these patients despite a more widespread use of early reperfusion and aggressive medical treatment.