

Prevalence of Sudden Cardiac Death in Israeli Athletes in View of the 1997 Mandatory Medical-Screening Legislation

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Background:

The prevalence of sudden cardiac death (SCD) in Israeli athletes has never been estimated. In 1997, updated legislation to the sports law of 1988 regulated a mandatory medical-screening program for all athletes. There is no current data to support this screening program. Our aims were to evaluate the hypothesis that the 1997 mandatory screening program did not reduce SCD in Israeli athletes and to establish an estimate of the prevalence of SCD of professional athletes in Israel.

Methods: SCD in athletes is a media-covered event. We conducted a data base search on SCD in Israeli athletes during the years 1985-2009. These included national and local news papers, medical literature, sports organizations, government and sick fund offices. All reports were scrutinized for the affirmation an SCD event. An estimate for the total number of Israeli athletes during these years was calculated using data from official sport organizations.

Results: The systematic data base search yielded 24 documented SCD or sudden cardiac collapse events leading to death in Israeli athletes, during the years 1985-2009. We excluded 12 documented events from this analysis. Of the SCD events, 11 occurred before the 1997 legislation and 13 after it. At a crude assumption of 50,000 athletes in Israel, the present data covers 1,250,000 person years. The total prevalence for SCD was 1.92 per 100,000 person years. The prevalence before the legislation was 1.7 per 100,000 person years and after it 2.2 per 100,000 person years.

Conclusions: The current SCD estimates are similar to previously published ones (Italy, USA). We found no preventative benefit for the mandatory screening legislation.