

## **Vegetation Size in Patients with Infective Endocarditis**

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**Objective.** Infective endocarditis is a serious disease with diverse clinical manifestations. In this work we analyzed vegetations' size in relation to the clinical presentation, course of the disease, and the type of the microorganism.

**Methods:** A total of 146 patients with definite diagnosis of infective endocarditis were identified at Assaf Harofeh Medical Center during the years 1998 to 2010. Of them in 102 patients accurate vegetations' size was available. The data of these patients were collected and analyzed.

**Results:** 23% of patients died, embolic complications occurred in 20.6% of patients, 16% of patients underwent surgery. Large vegetations ( $\geq 1$ cm) occurred in 46 patients. Older patients ( $>60$  years) with large vegetations had significantly increased risk of mortality 38% ( $p<0.05$ ).

The strongest independent predictor of mortality was MRSA endocarditis (45%,  $p=0.01$ ), followed by staphylococcal endocarditis associated with large vegetations (43%,  $p=0.01$ ), or with older age (41%,  $p=0.01$ ). The combination of staphylococcal endocarditis with large vegetations in the older patients was associated with mortality risk of 50%,  $p=0.02$ . Large vegetations were associated with high incidence of abscess formation (17%,  $p<0.001$ ), especially in combination with MRSA (27%,  $p=0.01$ ), diabetes (25%,  $p<0.02$ ) and older age (30%,  $p=0.01$ ).

**Conclusion:** Our results indicate that in patients with infective endocarditis the strongest predictor of mortality is MRSA infection, followed by staphylococcal infection especially in association with older age or with large vegetations. Older patients with large vegetations are also in significant risk of mortality. In these groups of patients surgery should be considered early.