

Better long term survival after AVR with Tissue valves in patients older than 60 years.

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The survival after implantation of an aortic valvular prosthesis is shortened compared to the expected, mostly due to complications related to the valve: thromboembolism and bleeding due to the anticoagulation in mechanical valves, degeneration of the valve and reoperation in tissue valves, and

endocarditis. To investigate how these different risk factors influenced survival we have studied all patients having an aortic valve implanted in our hospital since 1975. The policy for choice of valve has mostly been to advocate tissue valve in patients older than 65-70 years. The survival was compared to the year, age and gender related risk of death in the total Norwegian population, thus the relative survival (actual/expected) could be calculated. Of 2175 patients only two were lost to follow-up. Mean age at operation was $74,8 \pm 6,6$ for the tissue valves (median survival 9.8 years) - and $58,8 \pm 13,9$ for the mechanical valve (median survival 13.5 years). The 30-day mortality was 3.8% for tissue valves and 2.3% for mechanical

valves. By multiregression analysis this difference was not significant due to the difference in age. Patients with tissue valves had less reoperations than those with mechanical valves. The relative survival for mechanical valves showed a continuous decline after 5 years, so that after 30 years only 40% of the expected were alive. This tendency was more pronounced in patients more than 60 years of age at operation. For this age group the survival with tissue valves was higher then expected until 11 years after the operation, and until 16 years after the operation the relative risk was substantial higher for the mechanical valves (fig). Because of better long time survival the current policy should be changed so that also for patients younger than 65-70 years of age a tissue valve should be recommended.

