

[Cognitive and quality of life trajectory after either surgical or transcatheter aortic valve replacement in high-risk patients].

[Article in Italian]

[Ciucà C¹](#), [Fortuna D²](#), [Ferrari S³](#), [Salizzoni S⁴](#), [Grisoglio E⁵](#), [Punta G⁶](#), [Del Ponte S⁶](#), [Aranzulla TC⁷](#), [Gabbieri D⁸](#), [Gandolfo C⁹](#), [Dispensa F⁹](#), [Vecchio Verderame L⁹](#), [Tamburino C¹⁰](#), [Caruso C¹⁰](#), [Grossi C¹¹](#), [Mikus E¹²](#), [Guiducci V¹³](#), [Violini R¹⁴](#), [Rongoni S¹⁴](#), [Pandolfi C¹⁴](#), [Moretti C¹](#), [De Palma R²](#), [Chattat R¹⁵](#), [Savini C¹⁶](#), [Marzocchi A¹](#), [Saia F¹](#).

Author information

- 1 U.O. Cardiologia, Dipartimento Cardio-Toraco-Vascolare, Azienda Ospedaliero-Universitaria di Bologna, Policlinico S. Orsola-Malpighi, Bologna.
- 2 Agenzia Sociale e Sanitaria Regionale, Regione Emilia-Romagna, Bologna.
- 3 U.O. Cardiologia, Dipartimento Cardio-Toraco-Vascolare, Azienda Ospedaliero-Universitaria di Bologna, Policlinico S. Orsola-Malpighi, Bologna - Dipartimento di Psicologia, Università degli Studi, Bologna.
- 4 U.O. Cardiochirurgia, Città della Salute e della Scienza - Molinette, Torino.
- 5 SCDU Geriatria e Malattie Metaboliche dell'Osso, Città della Salute e della Scienza - Molinette, Torino.
- 6 S.C. Cardiochirurgia, Ospedale Mauriziano Umberto I, Torino.
- 7 U.O. Cardiologia, Ospedale Mauriziano Umberto I, Torino.
- 8 U.O. Cardiochirurgia, Hesperia Hospital, Modena.
- 9 U.O. Cardiologia, ARNAS Ospedale Civico Di Cristina Benfratelli, Palermo.
- 10 U.O. Cardiologia, Azienda Ospedaliero-Universitaria Policlinico Vittorio Emanuele, Ospedale Ferrarotto, Catania.
- 11 U.O. Cardiochirurgia, Azienda Sanitaria Ospedaliera S. Croce e Carle, Cuneo.
- 12 Villa Maria Cecilia Hospital, Cotignola (RA).
- 13 U.O. Cardiologia Interventistica, Ospedale S. Maria Nuova, Reggio Emilia.
- 14 U.O. Cardiologia, A.O. San Camillo-Forlanini, Roma.
- 15 Dipartimento di Psicologia, Università degli Studi, Bologna.
- 16 U.O. Cardiochirurgia, Dipartimento Cardio-Toraco-Vascolare, Azienda Ospedaliero-Universitaria di Bologna, Policlinico S. Orsola-Malpighi, Bologna.

Abstract

RATIONALE:

The impact of transcatheter aortic valve implantation (TAVI) or surgical aortic valve replacement (AVR) on cognitive status and quality of life in high-risk patients has been incompletely investigated.

METHODS:

We conducted a prospective, multicenter study including all patients treated with TAVI and high-risk patients undergoing AVR (age ≥ 80 years or logistic EuroSCORE $\geq 15\%$) at participating centers. Multidimensional geriatric evaluation including Mini Mental State Examination (MMSE), EuroQol 5D (EQ5D) and Minnesota Living With Heart Failure Questionnaire (MLHFQ) were performed at baseline and at 3- and 12-month follow-up.

RESULTS:

A total of 518 patients (151 AVR and 367 TAVI) were enrolled in 10 Italian institutions. Patients receiving AVR were older (82.7 ± 2.4 years), with a lower logistic EuroSCORE ($12.5 \pm 7.1\%$) as compared with TAVI patients (81.5 ± 6.2 years and $19.6 \pm 14.0\%$, respectively, $p=0.001$ and $p<0.001$). Overall, 35.5% of patients showed some degree of cognitive impairment at baseline, with no differences between groups. No significant changes in the cognitive status were observed between baseline and follow-up and between groups at any time point. TAVI patients had a lower quality of life at baseline as compared with AVR patients. Generic and heart failure-related quality of life improved significantly after either procedure.

CONCLUSIONS:

In high-risk patients, both TAVI and AVR are associated with a significant improvement of quality of life up to 1 year without a detrimental effect on cognitive function.