

Heart, Lung and Circulation (2017) xx, 1–7  
 1443-9506/04/\$36.00  
<http://dx.doi.org/10.1016/j.hlc.2017.02.012>

# “Eight Days of Nightmares . . . ” – Octogenarian Patients’ Experiences of Postoperative Delirium after Transcatheter or Surgical Aortic Valve Replacement

**Q1** Irene Instenes, MSc<sup>a</sup>, Eva Gjengedal, PhD<sup>b,c</sup>, Leslie S.P. Eide, PhD<sup>d</sup>,  
 Karel K.J. Kuiper, PhD<sup>a</sup>, Anette H. Ranhoff, PhD<sup>d,e</sup>,  
 Tone M. Norekvål, PhD<sup>a,d\*</sup>, On behalf of the CARDELIR Investigators

**Q2** <sup>a</sup>Department of Heart Disease, Haukeland University Hospital, Bergen, Norway

**Q3** <sup>b</sup>Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway

<sup>c</sup>Molde University College, Molde, Norway

**Q4** <sup>d</sup>Department of Clinical Science, University of Bergen, Bergen, Norway

<sup>e</sup>Kavli Research Center for Geriatrics and Dementia, Haralds plass Hospital, Bergen, Norway

Received 23 December 2016; accepted 5 February 2017; online published-ahead-of-print xxx

## Background

Surgical aortic valve replacement (SAVR) and transcatheter aortic valve implantation (TAVI) are increasingly performed in octogenarian patients with severe aortic stenosis (AS), including those with high surgical risk. Postoperative delirium (PD) is a common and serious complication in older patients, characterised by reduced awareness, change in consciousness, disturbance in logical thinking and hallucinations.

## Methods

To explore how octogenarian patients experienced PD, a qualitative study was conducted including five women and five men between 81 and 88 years. The incidence of PD was assessed for five days using the Confusion Assessment Method. Cognitive function was assessed preoperatively and at a six-month follow-up using the Mini-Mental State Examination. In-depth interviews were conducted 6–12 months post-discharge, transcribed, and analysed using Giorgi’s phenomenological method.

## Q6 Results

Postoperative delirium experiences were grouped into six themes: “Like dreaming while awake”, “Disturbed experiences of time”, “Existing in a twilight zone”, “Trapped in medical tubes”, “Moving between different surroundings” and “Meeting with death and the deceased”.

## Conclusions

For the first time, we show that octogenarian patients who undergo SAVR or TAVI have strong and distressing memories of their delirious state that can persist for up to 12 months later. These findings provide valuable new information that will likely improve delivery of health services and enhance professional and empathic care of octogenarians after SAVR and TAVI.

## Keywords

Delirium • Older patients • TAVI • Qualitative method

**Q5** \*Corresponding author at: Department of Heart Disease, Haukeland University Hospital, Box 1400, N-5021 Bergen, Norway, Tel: +47 55 97 36 49., Email: [tone.merete.norekval@helse-bergen.no](mailto:tone.merete.norekval@helse-bergen.no)

© 2017 Australian and New Zealand Society of Cardiac and Thoracic Surgeons (ANZSCTS) and the Cardiac Society of Australia and New Zealand (CSANZ). Published by Elsevier B.V. All rights reserved.

Please cite this article in press as: Instenes I, et al. “Eight Days of Nightmares . . . ” – Octogenarian Patients’ Experiences of Postoperative Delirium after Transcatheter or Surgical Aortic Valve Replacement. Heart, Lung and Circulation (2017), <http://dx.doi.org/10.1016/j.hlc.2017.02.012>

## Introduction

Advances in surgical techniques have made it possible to perform surgical aortic valve replacement (SAVR) and transcatheter aortic valve implantation (TAVI) in patients with severe aortic stenosis, including those of advanced age and high surgical risk [1]. Postoperative delirium (PD) is a common and serious complication after surgery, especially in older patients [2,3]. The condition is present in 80% of intensive care unit (ICU) patients [4], and in 3–52% of all patients after cardiac surgery [5]. Patients undergoing aortic valve replacement, have a higher risk of developing delirium compared to other forms of surgery [6].

Delirium is an acute disturbance in attention and awareness and is characterised by a decline in cognitive functions, such as orientation, memory, language, visuospatial ability, and perception [7]. Delirium develops quickly, typically within hours or days, and tends to fluctuate in severity over the course of day [7,8]. Despite its seriousness, delirium frequently goes unrecognised and is poorly understood [8]. Delirium is perhaps the most overlooked factor predicting the long-term cognitive outcome in cardiovascular patients [3]. During a delirium episode, communication, decision-making capacity and function are impaired [9].

Few qualitative studies describing the delirium experience have been performed in octogenarians after cardiac surgery. These few studies include a mixed population, with a median age between 46 and 85 years [10–12]. Little is known, therefore, about how the oldest old patients recollect the delirium episode and what the long-term impact these experiences might have on their daily living and quality of life. In light of increasing use of new surgical techniques and the opportunity to perform aortic valve therapy in patients of advanced age, it is vital to investigate how delirium influences this particular population. To the best of our knowledge, no other qualitative studies have described octogenarians' experiences of having delirium after treatment with TAVI. Therefore, the aim of this study was to explore and describe how octogenarians experience delirium after SAVR or TAVI.

## Methods

### Design and Setting

We conducted a phenomenological qualitative study of octogenarian patients experiencing delirium after SAVR and TAVI. In-depth interviews were performed 6–12 months after treatment for AS, in a tertiary university hospital in Norway. A phenomenological approach focusses on people's experiences and how they give meaning to those experiences [13].

### Patients

Patients were recruited from a research study entitled, "Delirium in octogenarians undergoing cardiac surgery of intervention (CARDELIR)" [14,15]. In brief, CARDELIR is a prospective cohort study of octogenarian patients with

severe AS. These patients are scheduled for elective TAVI or SAVR and are capable of understanding and speaking Norwegian. The incidence of delirium in CARDELIR was 44% after TAVI and 66% after SAVR [14]. According to management guidelines for valvular heart diseases, severe AS is defined as aortic valve area  $<0.6 \text{ cm}^2/\text{m}^2$ , mean gradient  $>40 \text{ mmHg}$ , and maximum jet velocity  $>4.0 \text{ m/s}$  [16]. Surgical aortic valve replacement is the standard treatment for patients with severe AS, but TAVI has become a reliable alternative for patients with multiple comorbidities and considered at too high risk for conventional open-heart surgery [1].

A professional heart team evaluated potential TAVI candidates based on clinical and anatomic criteria, together with a consideration of their history, physical examination, and echocardiogram. To estimate surgical risk, CARDELIR researchers used the European System for Cardiac Operative Risk Evaluation (EUROSCORE) [17]. All patients included in this qualitative study had experienced delirium. The presence of PD was assessed for five postoperative days with the Confusion Assessment Method (CAM) [18]. The CAM is a standardised tool for identifying delirium. The CAM consists of operationalised criteria from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and assesses four features: (1) acute-onset and fluctuating course, (2) inattention, (3) disorganised thinking, and (4) altered level of consciousness. Delirium is diagnosed when features 1 and 2 are present and either 3 or 4 are displayed. Cognitive function was measured with the Mini Mental State Examination (MMSE) [19], at baseline and at six-month follow-up. The MMSE is a 20-item instrument with a maximum achievable score of 30 points. The cutoff score in this study was 27; any score greater than or equal to 27 points indicates normal cognition [14].

An experienced nurse at the tertiary university hospital recruited the patients. In total, 22 patients fulfilling the inclusion criteria of the study and attending follow-up visits during autumn 2013 and winter 2014 were invited to participate. Thirteen of them were invited at the six-month follow-up visit. In this group, five patients did not remember having experienced any delirium, two did not consent to participate, and two withdrew their consent. Four patients were interviewed. Nine additional patients were approached 12 months after their discharge. One patient did not remember having experienced delirium, one did not consent, and one was excluded due to the time window constraint. Six patients were recruited at this point of time. Altogether, 10 patients were included in this study (five women and five men), with age range of 81–88 years. Six had been treated with SAVR and four with TAVI (Table 1).

### Data Collection

Data were collected using a 30- to 40-minute in-depth interview. The interviews were performed by the first author. A pilot interview was completed first on an experienced nurse, and this interview informed the development of the final interview guide. Seven of the interviews took place in the

Download English Version:

<https://daneshyari.com/en/article/8659842>

Download Persian Version:

<https://daneshyari.com/article/8659842>

[Daneshyari.com](https://daneshyari.com)