



Early Cardiac Implantable Electronic Device Lead Dislodgement in the Elderly

Ralf Hass*

Department of Obstetrics and Gynaecology, Medical University, Hamburg, Germany

INTRODUCTION

Lead dislodgement, particularly in the older adult population, is one of the most common cardiac implantable electronic device implantation complications. The evaluation of frailty may be important for the course and safety of the implantation procedure, especially among elderly people with cardiovascular diseases, because there is little information about the relationship between frailty and the risk of lead dislodgement after implantation procedures. This study aimed to evaluate early lead dislodgement risks and predictors in the elderly population. Methods: 14,293 patients underwent implantations between. Lead dislodgement was confirmed in 400 elderly patients, and frailty was tallied in the past. Results: The atrial lead was the lead that was dislodged the most frequently, according to lead position. Within logistics The ageing of the population and the advancement of medical care are factors contributing to the steadily rising number of cardiac implantable electronic device procedures, which include the implantation of cardiac pacemakers implantable cardioverter-defibrillators and resynchronization systems With fewer passive leads implanted in favour of leads with active fixation, lead technology has recently made significant strides Despite the advantages of lead technology, there are about as complications as implantation devices Lead dislodgement, which patients and is linked to reoperation and lead fixation is one of the most common complications additionally, Prutkin.

DESCRIPTION

Demonstrated that one of the between and, the Electro cardiology Department hospitalised patients for de implantation, including and. A group of elderly patient's aged or older was chosen from among the 480 patients with lead dislodgement whose data were entered into the retrospective registry. Here's a summary of the study's structure and patient selection. The majority of the patients who were enrolled had arterial hypertension as a comorbid condition. Ischemic heart disease atrial fibrillation heart failure and diabetes were the following most prevalent comorbidities. The majority of received blockers, followed by B-blockers, calcium blockers, and statins Data on lead dislodgement episodes were split

into two groups: The Shapiro-Wilk test was applied to determine whether the data distribution was normal. To forecast the causes of lead dislodgement, logistic regression analysis was used. The value of frailty was evaluated using the curve analysis to forecast a higher risk of dislodgment [1].

P-values of 0.05 or lower were regarded as significant for the findings. The Statistical Software version 20.114 was used to carry out all of the analyses that were presented. This study only allowed voluntary, anonymous participation. The study protocol was approved by the Medical University of Silesia's regional bioethics committee. The protocol followed the most recent iteration of the Helsinki Convention when it was created for the study Increased complications, such as lead dislodgements, are linked to increased use of numerous studies conducted evaluated the risk factors for lead dislodgements [2].

For instance, DB ski et a demonstrated that the position of the atrial lead is a distinct risk factor for lead dislodgement. Additionally, the authors claim that the likelihood of lead failure increases with age at implantation]. A study of 3909 implanted leads by Ghani, et al. revealed that right atrial and lead dislodgements are more common than right ventricular lead dislodgements. Additionally, they note that compared to single-chamber, lead dislodgements were more frequently seen in resynchronization systems with and dual-chamber cardioverter-defibrillators. According to the the most additionally, it has recently been demonstrated that older people who also have cardiac arrhythmias have higher frailty syndrome scores.

Therefore, by calculating the degree of frailty, our results demonstrated the risk of early lead dislodgment. Assessing frailty may be a crucial component of choosing elderly patients who are suitable candidates for procedures. This might aid in avoiding further issues and enhancing clinical results. Additionally, the findings of our study offer guidance for conducting better and quicker follow-ups after implantation, particularly in patients with high frailty rates. Additionally, studies demonstrate that the high risk of perforation, particularly in the apex of the right ventricle and during implantation, makes it necessary to avoid the improper lead position [3-5].

Correspondence to: Ralf Hass, Department of Obstetrics and Gynaecology, Medical University, Hamburg, Germany, E-mail: Hamburgalrhass12@gmail.com

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CONCLUSION

Atrial lead dislodgement was the most typical dislodgement seen in the slightly more than 14,000 CIED procedures carried out over the previous 14 years. We also note that lead dislodgment is a common occurrence in elderly people. Frailty is a predictor of early lead dislodgment in both men and women. In order to enable high clinical and procedural success, our findings suggest that estimation of the prevalence of frailty could be incorporated into routine management. The study's primary drawbacks were its single centre and observational design. Regarding implantation methods that cause lead dislodgements, no data were gathered. Furthermore, the regression models do not make adjustments for variables other than sex and age.

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