

Patients' knowledge and perception of living with cardiac implantable electronic devices and treatment compliance.

By Tanattida Phanthong ; Advisor Ronpichai Chokesuwattanaskul MD, Aekarach Ariyachaipanich MD

INTRODUCTION

Pacemakers, implanted cardioverter-defibrillators (ICDs), and cardiac resynchronization treatment (CRT) are among the cardiac implantable electronic devices (CIEDs) that are becoming the standard of care in an increasing number of patients. Patients' understanding toward CIED, on the other hand, remains ambiguous. Several studies have found a significant discrepancy between patients' perceptions of their own device expertise and their real knowledge. Although patient's perception, implantation rates, and complications are well described in the literature, there is little research on the relationship between patient knowledge and compliance of treatment especially in the Thai population.

METHODS

Patients with CIEDs who had been implanted recently or in the past were included in the prospective, randomized, nationwide snapshot survey. Patients with any type of CIED were invited to participate in the research by completing these survey questions at a routine device check-up at King Chulalongkorn Memorial Hospital. Upon giving oral informed consent, the patients are consecutively enrolled in the study. To guarantee the best understanding of the questions, the questionnaire is constructed in patients' native language which is Thai. Data was collected and analyzed using SPSS version 27. Other statistical metrics and response frequency frequencies will also be evaluated

OBJECTIVES

The objective of this study is to determine how **patient education** influences **patient perception** and **acceptance** of living with cardiac implantable electronic devices (CIEDs), as well as the level of **compliance** which could have an association with other complications after CIED implantation.

RESULTS AND DISCUSSION

RESULTS

The trial run consists of 4 patients who had CIED implanted in the past. Out of the 4 participants, 3 were female and 1 were male. Mean age of the study group was 48.25, 50% of the individuals were university graduates. In which, 50% were single. Results are shown in Table 1.

DISCUSSION

Most patients have a good understanding of how to care for themselves, what to do, and what not to do. The results show that half of the patients were able to answer correctly 75% of the time and half of them missed at least 2 out of 4 questions. Most common missed question is whether it is safe for the patient to go through a metal detector, half of the patients think it is safe while the other half disagree. This indicates that more patient education both pre and post implantation is required in order to solve the common misconception about CIED. Surprisingly, in the perceived limitation section most patients are not concerned about the ability to return to their normal life post implantation. They either expressed neutrality or strong agreement that they will be able to resume their usual function. In addition, the majority of the patients have minimal concern regarding the device itself because they feel that they receive enough support from the healthcare workers. A healthy doctor-patient relationship is facilitated by regular checkups, accessibility, and the doctor's understanding.

Questionnaire

Question	Yes (%)	No (%)
1. is it safe to drive?	75	25
2. is it safe to go on a plane?	100	0
3. is it safe to go through a metal detector?	50	50
4. is it safe to be close to electronic appliances?	100	0

Questions related to the general knowledge

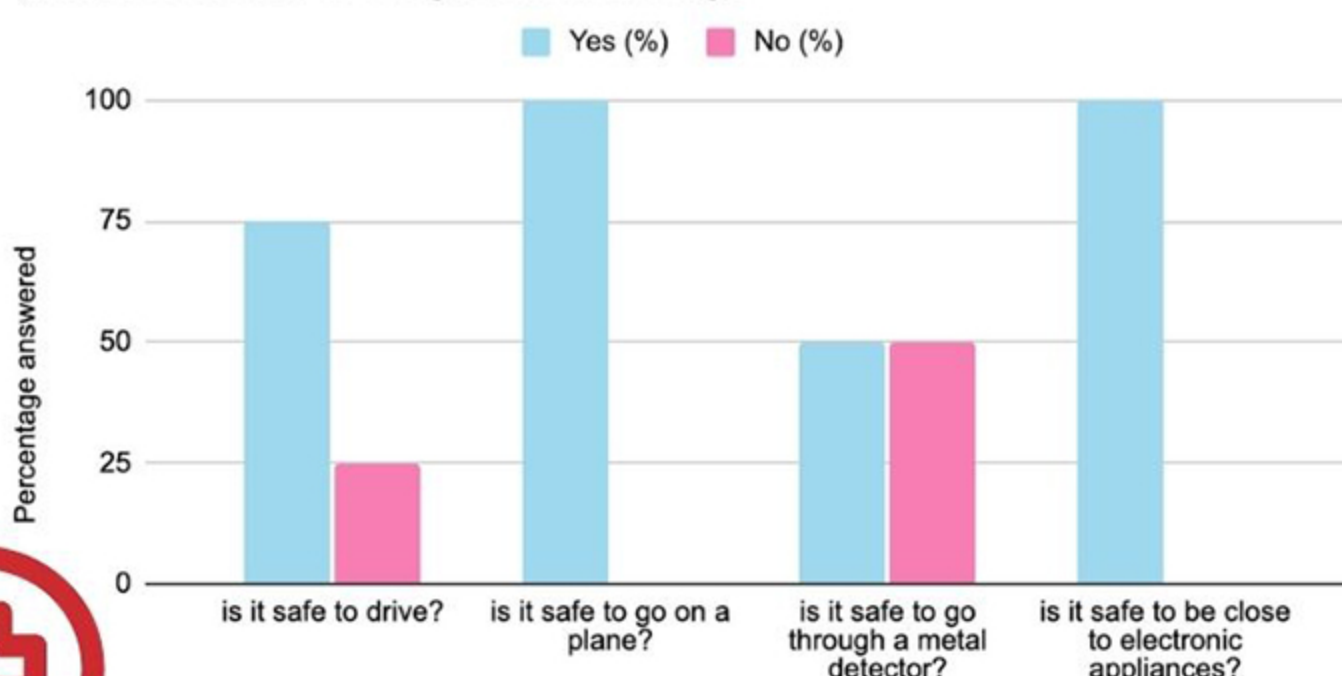


Table 1

CONCLUSION

In conclusion, patients were generally informed about their basic knowledge of the device such as how long they have had the implantation, or the manufacturer of their device. However, when it comes to the common misconception such as going through a metal detector or safety while driving, the answer varies. Quality of life improved in the majority of the patients. Patients feel safer which leads to less worry about the device. Another interesting finding is that most of the patients feel confident in their doctor patient relationship which leads to better compliance when it comes to medical adherence.