Permanent Cardiac Pacing in Elderly – Are There any Differences?
Analysis of Patient from Pacemaker Implantation Center in
Swietokrzyskie Center of Cardiology in Kielce

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Introduction: History of permanent implantable pacemakers is short and it is slightly more than 50 years. The first pacemaker was implanted in Sweden in 1958 by Professor Ake Sening. In Poland the first pacemaker implantation was done in Gdansk in 1963. The main reason for implantation of permanent pacemakers is sick sinus syndrome.

The aim: The aim of this study is comparative analysis of group of patients admitted to cardiology department to implantation of permanent pacemaker. The secondary aim is to study the group of elderly patients who had pacemaker implanted, to find age and sex structure and to show differences in indication of permanent pacemakers in elderly and younger patients.

Material and Methods: The were analysed 5018 patients who had implanted pacemaker in Świętokrzyskie Cardiology Center in Kielce in the years 1993-2009.

Results: In the late elderly and in the very late elderly was respectively 1555 (53,33%) and 286 (55%) women; 1361 (46,67%) and 234 (45%) men. These differences between groups of women and men are statistically significant (p<0,05). Late elderly and very late elderly patients survive after implantation respectively 37.4 and 42.8 months and it is longer than groups of younger patients.
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Electrocardiogram

- AVB I and II degree
- AVB III degree
- LBBB + symptoms
- SSS
- Tachy-brady syndrome
- AF + AVB III degree

Relation between age groups and indications for implantation of pacemaker
Analysis of survival after first pacemaker implantation depending on age.

Variance analysis $F = 2.62 \ p < 0.05$
Conclusions:
Pacemaker implantation is important procedure in elderly patients (late elderly and very late elderly)
On the basis of observations of large groups of patients with implantable pacemaker in Swietokrzyskie District it can be concluded that in old age and longevity phase there were implanted the largest number of cardiac pacemakers.
Survival of the elderly patients after pacemaker implantation is greater compared to younger patients groups.
Issue of permanent stimulation in old age and survival after implantation is a very interesting and require the extension of research especially on the relationship of time of survival from age, gender, type of stimulation, accompanying cardiac diseases.
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