

PERMANANT CARDIAC PACING – ATTEMPT TO CONNECTION BETWEEN
NUMBER OF IMPLANTATED DEVICES AND AIR POLLUTION

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Summary

First permanent cardiac pacemaker was implantatem in Sweden by prof. Ake Sening and constructor Rune Elmquist. The procedure was performed 8th October 1958. First implantation in Poland was performed in Clinic in Gdansk by prof. Zdzislaw Kieturakis and dr Wojciech Kozlowski. Since than development of different form of cardiac pacing was started. This article was written in 50th anniversary of first cardiac pacemaker implantation in the world. Cardiac Pacemaker Implantation Centre in Swietokrzyskie Cardiac Centre is also recently launched. The aim of the study is to present a brief of cardiac pacing in author's implantation centre, Poland and in the world. Because of increasing environment and food pollution in these days, attention is drawn to the impact of this pollution on circulatory system and cardiac diseases. The aim of the study is the attempt to give an answer to the question: Does environment pollution has impact on higher frequency of cardiac pacemaker implantation in Poland. The study shows a data of patients qualified to permanent cardiac pacing in 1993–2009. In this time 7482 cardiac pacemakers were implantated in general. DDD, VVI, AAA, VDD pacemakers were implantated most often. Data were acquired from casebooks of patients admitted to Swietokrzyskie Cardiac Centre and Pacemaker Control Workshop in Voivodship Hospital in Kielce. 7482 permanent cardiac pacemakers were implantated in 1993–2009 in general. This group consisted of 787 AAI, 4031 VVI, 465 VDD and 2199 DDD pacemakers. After comparison of these data with national data we observed that the highest number of implantation of a cardiac pacemakers were performed in mazowieckie, lubuskie, 134 Janusz Sielski, Maria Rebeka Matejko dolnoslaskie, opolskie voivodship. The lowest number numer of implantation were performed in warminsko-mazurskie and lubelskie voivodship. After consideration the fact that results of environment and food pollution has a similar distribution, a cautiously thesis was suggest that environment

pollution has impact on frequency of pacemakers implantation. Presented data suggest that further studies of this problem are desirable.