

20 YEARS OF OPEN HEART SURGERY IN ICELAND

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Objective: Since the first open heart operation was performed in Iceland on the 14th of June 1986 over 3900 cases have been done. They have all been performed at a single centre and by the same team of surgeons. This is a 20 year review from a cardiothoracic centre serving a whole nation.

Material and methods: This is a retrospective review on all open heart surgery in Iceland from June 14th 1986 to April 24th 2006. Information was gained from a central surgical database.

Results: The total number of operations was 3900. During the first 6 months 32 patients were operated on with a steady increase up to 270 cases per year in 1994. Since then the number of cases has been fairly constant around 220 cases per year (76 cases per 100.000 inhabitants per year). Coronary artery bypass operations were the most common procedures, or 2964 out of which 187 were OPCAB cases. The ratio OPCAP/CABG was 30% in 2004, 49% in 2005, and 34% in the first half of 2006. The average age of the CABG/OPCAP patients increased from 59 years in 1986 to 67 years in 2006. LIMA was used in 93% of the cases and the average number of distal anastomoses was 3.6. Operative mortality (OM) for CABG/OPCAP was 2.3%. The most common valve procedure was AVR (n=558), with 249 mechanical and 309 (55%) biological prostheses. In 210 cases (38%) AVR + CABG was performed and 16 cases of AVR+MVR. From 2002 over 90% of the biological prostheses were stentless porcine aortic valves, usually implanted in a subcoronary location. OM for AVR operations was 5.9%. Mitral valve surgery included 55 cases of MVR and 65 repairs, with OM of 4.2%. 54 ascending aneurysms were operated, 30 composite grafts and 24 biologic root replacements. Two Ross operations were done. From 1997 a total of 114 congenital pediatric cardiac operations were performed, including 57 ASD's, 30 coarctations and several cases of tetralogy of Fallot. All survived surgery, however the most complicated cases were referred to hospitals abroad.

Conclusion: Cardiac surgery has been performed in Iceland for almost 20 years with surgical results comparable with large tertiary reference centres. This includes congenital pediatric cases. Open heart surgery is as common in Iceland as in most other Nordic countries and stentless aortic biological valves and OPCAB are commonly used.