REFERENCES


eComment. Cardiovascular surgery in carcinoid heart disease

Author: Sanjeev Bhattacharya
Royal Brompton Hospital, London, UK
doi:10.1093/icvts/ivs321

© The Author 2012. Published by Oxford University Press on behalf of the European Association for Cardio-Thoracic Surgery. All rights reserved.

Mabvuure and colleagues succinctly summarize the data regarding valve replacement surgery and specifically the choice of valve prosthesis in carcinoid heart disease [1]. They correctly note there is very little data which compares mechanical and biological valves in this patient population. They reported on studies which represent a total of 51 patients who underwent tricuspid valve replacement. The authors did not include an important retrospective study which investigated the management and outcome of valve replacement surgery in 26 patients with carcinoid heart disease operated on between 1985 and 1992 [2]. In this study, 20 out of the 26 tricuspid valve replacements were performed with mechanical valves. They reported a 35% perioperative mortality. Of the 17 patients who survived the initial operation there were 9 late deaths at a mean of 19 months postoperatively. No deaths were due to cardiovascular causes. The same group looked at temporal trends in perioperative mortality in patients with carcinoid heart disease undergoing valve replacement surgery [3]. 30-day perioperative mortality fell from 25% for patients operated between 1981 and 1989 to 9% for patients operated between 1995 and 2000. Another group reported the outcome of 10 patients, who all underwent tricuspid valve replacement between 2001 and 2006 with bioprosthetic prostheses [4]. Overall, perioperative mortality was 20%. At a mean follow-up of 37 months, there were no cases of structural valve deterioration.

There are compelling reasons for the use of bioprosthetic prostheses in patients with neuroendocrine tumours. Mechanical valves require lifelong anticoagulation with warfarin. The majority of patients with carcinoid heart disease will have liver metastases. This maybe associated with impaired liver function which may make control of anticoagulation more difficult and thereby increase the risk of haemorrhage. Secondly, these patients may require resection of liver metastases to control symptoms of carcinoid syndrome if they are refractory to medical therapy which will require interruption of anticoagulation therapy.

In summary, studies undertaken in the past 2 decades [3,4,5] showed reduced perioperatively risk compared to studies which report on patients operated on in the 1980s [2]. There are no reports of significant bioprosthetic valve degeneration in any of these modern series supporting their use in this patient group.

Conflict of interest: none declared.

References


eComment. Valve replacement in carcinoid heart disease

Authors: Hajj-Chahine Jamil, Jayle Christophe, Houmuida Hassan, Corbi Pierre
Department of Cardio-Thoracic Surgery, University Hospital of Poitiers, Poitiers, France
doi:10.1093/icvts/ivs333

© The Author 2012. Published by Oxford University Press on behalf of the European Association for Cardio-Thoracic Surgery. All rights reserved.

We read with great interest the paper by Mabvuure et al. regarding the durability of bioprostheses in patients with carcinoid valve disease [1]. Carcinoid heart disease occurs in the context of metastatic serotonin-producing neuroendocrine tumours in the liver and classically presents as a progressive dysfunction of the tricuspid and/or pulmonary valve due to endocardial plaque deposition, thus reducing the mobility of the right-sided valve leaflets [2]. Surgical valve replacement is the only effective treatment when symptoms of right heart failure emerge in this patient population.

Mabvuure and colleagues included the results of 17 papers in their research, and the pooled data represented 51 patients with bioprostheses in the tricuspid position [1]. Recently, an additional retrospective study was published [3] and the purpose of this study was to assess the early and late outcomes of patients with carcinoid heart disease after valve replacement. In the above-mentioned study, three patients received one or two bioprostheses. However the remaining 16 patients underwent implantation of mechanical valve prostheses. Early postoperative mortality was 10% and survival rates at 1 and 5 years were 71% and 43% respectively. At the last follow-up, all survivors were in NYHA class I and echocardiography showed improvement of right ventricle function in the majority of patients.

Although we recognize the efforts of Mabvuure and colleagues to identify the durability of biological valves in patients with carcinoid heart disease undergoing