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REFERENCES

- 1 Stone GW, Ellis SG, Cox DA, *et al.* A polymer-based, paclitaxel-eluting stent in patients with coronary artery disease. *N Engl J Med* 2004;**350**:221–31.
- 2 Moses JW, Leon MB, Popma JJ, *et al.* Sirolimus-eluting stents versus standard stents in patients with stenosis in a native coronary artery. *N Engl J Med* 2003;**349**:1315–23.
- 3 Morice MC, Serruys PW, Sousa JE, *et al.* A randomized comparison of a sirolimus-eluting stent with a standard stent for coronary revascularization. *N Engl J Med* 2002;**346**:1773–80.
- 4 Stone GW, Ellis SG, Cox DA, *et al.* A polymer-based, paclitaxel-eluting stent in patients with coronary artery disease. *N Engl J Med* 2004;**350**:221–31.
- 5 Ong ATL, Serruys PW, Aoki J, *et al.* The unrestricted use of paclitaxel- versus sirolimus-eluting stents for coronary artery disease in an unselected population: one-year results of the Taxus-stent evaluated at Rotterdam Cardiology Hospital (T-SEARCH) Registry. *J Am Coll Cardiol* 2005;**45**:1135–41.
- 6 Goy JJ, Stauffer JC, Siegenthaler M, *et al.* A prospective randomized comparison between Paclitaxel and Sirolimus stents in the real world of interventional cardiology: the TAXi trial. *J Am Coll Cardiol* 2005;**45**:308–11.
- 7 Kastrati A, Mehilli J, von Beckerath N, *et al.* Sirolimus-eluting stent or paclitaxel-eluting stent vs balloon angioplasty for prevention of recurrences in patients with coronary in-stent restenosis. *JAMA* 2005;**293**:165–71.
- 8 Dibra A, Kastrati A, Mehilli J, *et al.* Paclitaxel-eluting or Sirolimus-eluting stents to prevent restenosis in diabetic patients. *N Engl J Med* 2005;**353**:663–70.
- 9 Windecker S, Remondino A, Eberli FR, *et al.* Sirolimus-eluting and paclitaxel-eluting stents for coronary revascularization. *N Engl J Med* 2005;**353**:653–62.
- 10 Morice MC, Colombo A, Meier B, *et al.* REALITY: a prospective randomized, multicenter comparison study of the Cypher Sirolimus-eluting and Taxus paclitaxel-eluting stent systems. *JAMA* 2006;**295**:895–904.
- 11 Kastrati A, Dibra A, Eberle S, *et al.* Sirolimus-eluting stents vs Paclitaxel-eluting stents in patients with coronary artery disease. *JAMA* 2005;**294**:819–25.
- 12 Hong SJ, Kim MH, Ahn TH, *et al.* Multiple predictors of coronary restenosis after drug-eluting stent implantation in diabetic patients. *Heart* 2006;**92**:1119–24.
- 13 Roiron C, Sanchez P, Bouzamondo A, *et al.* Drug eluting stents: an updated meta-analysis of randomised controlled trials. *Heart* 2006;**92**:641–9.
- 14 Concato J, Shah N, Horwitz RJ. Randomized, controlled trials, observational studies, and the hierarchy of research designs. *N Engl J Med* 2000;**342**:1887–92.
- 15 Benson K, Hartz AJ. A comparison of observational studies and randomized, controlled trials. *N Engl J Med* 2000;**342**:1878–86.
- 16 Kelbaek H, Thuesen L, Helqvist S, *et al.* The stenting coronary arteries in non-stress/benestent disease (SCANDSTENT) trial. *J Am Coll Cardiol* 2006;**47**:449–55.
- 17 Kastrati A, Dibra A, Mehilli J, *et al.* Predictive factors of restenosis after coronary implantation of sirolimus- or paclitaxel-eluting stents. *Circulation* 2006;**113**:2293–300.
- 18 Ruygrok PN, Melkert RN, Morel MA, *et al.* Does angiography six months after coronary intervention influence management and outcome. Benestent II investigators. *J Am Coll Cardiol* 1999;**34**:1507–11.

IMAGES IN CARDIOLOGY

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Metastatic squamous cell carcinoma causing right ventricular outflow tract obstruction

A 50-year-old woman presented with two syncopal episodes 7 months after resection of squamous cell carcinoma (SCC) of the base of the mouth. Investigation for metastatic disease at the time of diagnosis was negative. She had been immunosuppressed for 19 years with azathioprine and prednisolone after renal transplantation. A new loud ejection systolic murmur was noted in the pulmonary area.

Transthoracic echocardiography showed a large mass (6×5 cm) attached to the right ventricular wall and extending into the main pulmonary artery, obliterating the right ventricular cavity (panels A and B). Coronary angiography showed neovascularisation from the right coronary artery (panels C). Computed tomographic scan of the chest showed the mass extensively involving the ventricular wall, as well as probable tumour emboli in the right pulmonary artery (panel D). Transvenous biopsy of the mass confirmed SCC. The patient started receiving radiotherapy, but died 6 days later.

Cardiac metastatic disease has been reported in up to 8% of patients who die from cancer, although it rarely results in clinical symptomatology. In particular, right ventricular outflow tract obstruction from SCC is extremely rare. We postulate that the patient's immunosuppression may have contributed to aggressive tumour progression.

(A,B) Transthoracic echocardiograms. Large mass in right ventricle (RV) obstructing right ventricular outflow tract. LA, left atrium; PA, pulmonary artery; RA, right atrium.

(C) Coronary angiogram—left anterior oblique view of the right coronary artery showing neovascularisation (arrows). (D) Computed tomography angiogram of the chest. Large right ventricular (RV) mass and evidence of likely tumour embolus to the right pulmonary artery.

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