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Case Report and Literature Review of Prosthetic Cardiovascular Mucormycosis

Appendix

Appendix Table. Characteristics of patients with cardiovascular mucormycosis from current case and literature review*

Patient and ref	Sex, Age	Background	Site of infection.	Delay†	Mucorales species	Co-infection	Antifungal treatment	Surgery	Outcome
P1 This case	M, 57	Type B aortic dissection	Aorto-bi-iliac bypass	Mo1	<i>Rhizopus microspores</i> (DE, culture)	<i>Candida albicans</i> , <i>Lactobacillus plantarum</i>	L-AmB + IZV Lifelong IZV	First surgery: Bypass removal for Silver prosthesis. D15: Resection of a digestive fistula + lavage + omentoplasty W6: Aorto bifemoral arterial allograft	Survived (M12) No recurrence
P2 (1)	M, 57	Type A aortic dissection	Ascending aortic and brachiocephalic prosthetic graft	NA	<i>Rhizopus arrhizus</i> (Histology)	No	L-AmB	Removal of a mass Aortic and brachiocephalic artery graft replacement	Survived (M9) No recurrence
P3 (2)	M, 38	Pseudoaneurysm of right iliac artery: stent Renal transplantation cyclosporine and steroids Acute reject due to arterial interruption Nephrectomy	Iliac artery stent	Mo2	Mucorales (Histology)	No	L-AmB 3 mo	Stent removal. Suprapubic femoral-femoral bypass with homologous saphenous vein graft	Survived (M12) No recurrence

Patient and ref	Sex, Age	Background	Site of infection.	Delay†	Mucorales species	Co-infection	Antifungal treatment	Surgery	Outcome
P4 (3)	F, 22	Coarctation of aorta	Dacron aortic graft	D18	<i>Mucor sp.</i> (Histology, DE, culture)	No	d-AmB 7 weeks	Dacron graft replacement	Survived (M12) No recurrence.
P5 (4)	F, 60	Aortobifemoral bypass	Saphenous vein graft	D9	Mucorales (Histology, DE, negative culture)	No	d-AmB	Replacement by new saphenous vein graft	Death
P6 (5)	M, 55	Ascending aortic aneurism Ocular histoplasmosis	Native aortic valve + dacron ascending aortic graft + splenic abscess	Y4	<i>Rhizopus sp.</i> (DE, culture)	<i>Aspergillus sp.</i>	PCZ (intolerance to AmB)	Cadaveric aortic homograft	Survived (M12) No recurrence
P7 (6)	M, 60	Degenerative aortic valve disease	Mechanical aortic valve + Septic emboli left lower limb	Mo1.5	<i>Mucor sp.</i> (Histology, DE, culture)	No	d-AmB + ICZ, 6–8 weeks	Prosthetic valve replacement	Survived (M12) No recurrence
P8 (7)	F, 80	3rd degree AV Block Essential thrombocytosis treated with hydroxyurea, COPD, ischemic stroke	Ventricular pacemaker lead + native tricuspid valve + septic embolic right lower limb	Y3	<i>Mucor sp.</i> (DE, culture)	No	L-AmB 7mg/kg	Removal of the entire pacemaker system	Death
P9 (8)	M, 84	Coronary artery bypass grafting, aortic valve replacement, pacemaker for post-operative heart block	Bioprosthetic aortic valve	Mo2	<i>Lichtheimia sp.</i> (DE, culture)	No	L-AmB + FCZ then lifelong PCZ	First aortic valve replacement surgery, no change of PM leads Second surgery at M7 for recurrence	Survived. Recurrence with negative perioperative samples (M7)
P10 (9)	M, 52	Mitral stenosis. Steroids	Mitral mechanical valve	D25	<i>Mucor sp.</i> (DE, culture)	No	Early death	Died before	Death
P11 (10)	F, 18	Mitral regurgitation Tricuspid annuloplasty for tricuspid regurgitation	Mechanical mitral valve + Bilateral femoral emboli	Mo3	<i>Mucor sp.</i> (Histology, DE, culture)	No	AmB	Vegetation removal + local instillation of amphotericin B	Survived. No recurrence
P12 (11)	M, 47	Aortic valvulopathy	Mechanical aortic valve + femoral artery emboli	Mo3	<i>Mucor sp.</i> (Blood cultures, histology, culture)	<i>Aspergillus sp.</i>	d-AmB	Died before	Death

Patient and ref	Sex, Age	Background	Site of infection.	Delay†	Mucorales species	Co-infection	Antifungal treatment	Surgery	Outcome
P13 (12)	M, 50	Aortic Stenosis. Steroids for pericarditis	Mechanical aortic valve. Ascending aorta (Saccular aneurysm)	Mo7	Mucorales (Histology)	No	Died before	Peri-operative rupture of the aneurysm	Death

*AmB, amphotericin B; d-AmB, deoxycholate amphotericin B; L-AmB, liposomal amphotericin B; D, day; DE, direct examination; F, female; FCZ, fluconazole; ICZ, itraconazole; IZV, isavuconazole; M, male; Mo, month; NA, non available; Y, year; PCZ, posaconazole.

†Delay between the implantation of the material and the symptoms.

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