

## Extensive cutaneous necrosis in infective endocarditis: do not forget rare causes

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A 54-year-old man was admitted through the emergency department of a local hospital with fever and large cutaneous necrotic lesions covering 20% of the body surface area (*Panel A*), followed by rapid onset of sepsis. After broad antibiotic treatment was initiated, surgical debridement was performed and vacuum-assisted (VAC) therapy installed. Blood cultures were positive for *Aerococcus urinae*. The transoesophageal echocardiography suggested presence of infective endocarditis (IE) with large vegetations on the mitral valve and severe mitral regurgitation.

Despite adjusted antibiotic treatment, the patient experienced persisting septical embolization to his upper extremities with cutaneous necrosis and was then transferred to our institution. Following the multidisciplinary evaluation through the endocarditis team, extensive surgical debridement of the necrotic skin lesions was performed, followed by mitral valve replacement (*Panel C*). The postoperative course included secondary wound healing with VAC therapy and skin grafting. The patient was discharged 38 days after cardiac surgery in good condition. The 5-month follow-up revealed improved exercise capacity with good function of the tissue mitral valve, but the patient died at home a month later from unknown cause.

Infective endocarditis is a rare but serious infectious disease, with remaining 1-year mortality of up to 30%. Often masked by the complications related to IE, the diagnosis is often delayed. Septical embolization is a feared complication; however, large cutaneous embolization is rare. There is no consensus recommendation on the treatment and timing of IE with large cutaneous embolization. When septical embolization persists, timely surgical intervention has to be coordinated multidisciplinary.

Extensive cutaneous and subcutaneous necrosis before surgical debridement (*Panels A and B*). Initial presentation of the skin embolization in the gluteal region (*Panel A*). Note the extensive necrotic lesions with clear margins (*Panels A and B*). Extensive cutaneous and subcutaneous necrosis after surgical resection of the necrotic tissue (*Panels B–D*). Extensive subcutaneous necrosis reaching to the superficial muscle layers (*Panels C and D*). Large vegetations on the mitral valve (*Panels E, G, H*) with severe mitral regurgitation (*Panel F*) as seen in the echocardiography. Intraoperative excised mitral valve apparatus with large vegetations on both leaflets (*Panel I*).

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