

Prosthetic joint infection due to rapidly growing mycobacteria: report of 8 cases and review of the literature.

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BACKGROUND: Prosthetic joint infection (PJI) due to rapidly growing mycobacteria (RGM) is only occasionally encountered in clinical practice. Therefore, the optimal clinical management for this condition is unknown.

METHODS: The medical records of patients who had PJI due to RGM during 1969-2006 were reviewed to summarize its clinical characteristics, treatment, and outcome.

RESULTS: Eight patients developed 9 episodes of PJI (7 episodes involving the knee and 1 each involving the hip or elbow) due to RGM at a median of 312 weeks (range, 1-170 weeks) after prosthesis implantation. Patients presented with joint pain (7 patients), joint swelling (7 patients), and fever (3 patients), accompanied by an elevated erythrocyte sedimentation rate (median, 70.5 mm/h) and C-reactive protein level (median, 6 mg/dL). *Mycobacterium chelonae* (n=3), *Mycobacterium abscessus* (n=2), *Mycobacterium fortuitum* (n=3), and *Mycobacterium smegmatis* (n=1) were isolated from the 9 infected joints. Seven of 9 prostheses were resected, whereas 2 were retained after surgical debridement. Six of 8 patients received ≥ 1 active antimicrobial agent for at least 6 months. During a median follow-up period of 33 weeks (range, 2.6-326 weeks) after surgical intervention, no clinical or microbiological relapses were observed. Reimplantation was performed successfully for 2 of 6 patients who underwent resection arthroplasty. The 2 patients with retained prosthesis continued to receive prolonged courses of suppressive antimicrobial therapy.

CONCLUSIONS: RGM is a rare cause of PJI that should be suspected in patients with negative results of routine bacterial cultures. The combination of resection arthroplasty and antimicrobial therapy is the preferred approach. However, in cases involving retained prosthetic components, RGM infection may be suppressed with lifelong courses of effective antibiotic therapy.

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