SEPTIC ARTHRITIS FOLLOWING ARTHROSCOPY AND INTRA-ARTICULAR STEROIDS

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Septic arthritis of the knee is a rare but serious complication of arthroscopy. We report three cases associated with an intra-articular steroid injection.

Case 1. A 43-year-old man underwent arthroscopy of his left knee which showed medial degeneration; 2 ml of Depo-Medrone was injected. In the next two days he played two rounds of golf after which the knee was swollen and he was given flucloxacillin. At five days he developed pain, and at 10 days a discharge through the lateral wound. He was admitted the next day with an acute septic arthritis. Aspirated turbid fluid grew no organisms but a wound swab grew Staphylococcus aureus and the flucloxacillin was continued. Six weeks postoperatively he had good movement but a persistent effusion and marked thigh wasting.

Case 2. A 30-year-old man underwent arthroscopy of his left knee which showed medial degenerative changes; 2 ml of Depo-Medrone was injected. After five days the wounds had healed but at six days he developed an acute septic arthritis with a purulent discharge. Aspirated pus grew Staphylococcus aureus. A prolonged course of antibiotics led to resolution in two months.

Case 3. A 63-year-old man underwent arthroscopy of his right knee revealing medial degenerative changes; 2 ml of Depo-Medrone was injected. After six days the wounds had healed, but at nine days clear fluid leaked from the lateral wound, which was re-sutured; 24 days after the operation he developed an acute septic arthritis. Aspirated thick yellow fluid grew Pseudomonas aeruginosa. Gentamycin was started after a washout, but slow resolution led to arthrotomy 12 days later. Three months later he was well but with a decreased range of movement.

Discussion. DeLee (1985) reported 95 cases of septic arthritis following 118,590 arthroscopies (0.08%); in three of the cases a distant septic focus was implicated. Another study of 12,505 arthroscopies reported only one case of septic arthritis, in a knee with a previous joint replacement (Johnson et al. 1982). Allum and Ribbans (1987) reported one infection in 99 arthroscopies. This was in a patient with degenerative changes who had been given a Depo-Medrone injection; four days later he played squash and at two weeks he developed an acute streptococcal arthritis.

All our cases had received steroid injections at the time of arthroscopy. This had been the usual practice of one of the authors (JC) for patients with degenerative changes, and the three cases we report here are his only cases of acute septic arthritis to have occurred in over 1,500 arthroscopies over the past 10 years. The cases were widely separated in time. We suggest that a steroid injection at the time of arthroscopy may increase the risk of postoperative septic arthritis. The anti-inflammatory effect decreases pain allowing greater exercise and a larger effusion, putting pressure on the stab incisions. The healing process may be delayed by the steroid, allowing the portals to open sufficiently for the ingress of bacteria. Moreover, the steroid may mask the early stages of infection. We recommend that intra-articular steroids should not be given for some weeks after arthroscopy and endorse Allum and Ribbans advice against vigorous activity during this time.

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REFERENCES

