Indications for Surgery for Elderly Patients with Infective Endocarditis

Sirs—In his review of infective endocarditis (IE) in elderly patients, Dhawan [1] proposed a list of 8 situations that he considers to be “accepted indications” for surgery for patients with IE. We agree that age must not be a factor in determining whether a patient should undergo valvular surgery. Some situations are considered to be de facto indications for valvular surgery for patients with IE—namely, acute heart failure that is unresponsive to medical treatment, continuing bacteremia despite optimal antibacterial treatment, myocardial abscess, nonstreptococcal prosthetic valve endocarditis, and endocarditis due to an organism for which no curative antibiotic treatment is available [2]. However, some of the situations included in Dhawan’s list are more arbitrary. For example, the traditional indications for valvular surgery for patients with IE, to avoid embolization, are not supported by evidence-based medicine, including the size of the vegetation (>10 mm) and its location (anterior mitral leaflet) and the number of embolic events (>1). Steckelberg et al. [3] showed that the effect of vegetation size on embolic potential was specific to the infecting organism, with large vegetations independently predicting embolic events only in streptococcal IE. The same group showed that the rate of embolic events drops dramatically during the first 2 weeks of treatment [3]. Thus, the size of the vegetation is not sufficient per se to drive the patient to the operating room. Likewise, >1 systemic embolic event is a surgical indication only if the embolisms occurred after the start of therapy and if large vegetations remained. Recent recommendations based on an extensive review of the data in the literature suggested that the strategy for surgical intervention to avoid systemic embolization in patients with IE remains specific to the individual patient, with the benefit being greatest during the early phase of IE, when embolic rates are higher [2]. Given that age is by far the most predictive factor for complications after cardiac surgery [4], we suggest that, to avoid high-risk surgery for selected patients for whom medical treatment may be sufficient, some of the indications proposed by Dhawan as “accepted indications” for surgery for patients with IE should instead be qualified as “situations in which surgery must be considered.”

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References

A Case of Necrotizing Fasciitis Due to Streptococcus pneumoniae following Topical Administration of Nonsteroidal Anti-inflammatory Drugs

Sirs—Frick and Cerny [1] recently reviewed 7 published cases of necrotizing fasciitis due to Streptococcus pneumoniae that occurred after intramuscular injection of nonsteroidal anti-inflammatory drugs (NSAIDs). We wish to describe a patient in whom S. pneumoniae necrotizing fasciitis apparently developed after topical administration of NSAIDs.

A 39-year-old woman presented to the emergency department of our hospital with a 3-day history of pain in her lower right leg. At admission to the hospital, her temperature was 39.5°C. The skin was reddened and swollen in the area surrounding the right ankle and extending up to the right calf, and there was a small area of necrosis with bullae on the exterior aspect of the ankle. A painful enlarged lymph node was found in the right inguinal area. Laboratory findings at admission revealed a leukocyte count of 18,400 leukocytes/mm³ (90% neutrophils), an elevated fibrinogen level of 0.72 g/dL, and a C-reactive protein level of 322 mg/L; the serum creatine kinase level was normal.

There was no history of previous hospitalization and no evidence of immunocompromised status. The patient recalled no recent respiratory illness, and the oropharynx appeared normal. The result of a rapid HIV antigen test was negative, as was the result of a test for antinuclear antibodies. On further inquiry, the patient recalled that, 5 days before admission to the hospital, she had sustained a minor trauma on the right ankle, with no skin lesion, and had applied a cream containing an NSAID (moniflumate) on her ankle. During the next 2 days, she had noticed that her skin had reddened and was itching, which she had attributed to allergy to the topical cream, and she had scratched her ankle, resulting in minor skin abrasions. She took no other medication.

A Gram stain of a fluid sample obtained from a bulla by fine-needle aspiration revealed gram-positive diplococci, and culture of the fluid sample yielded penicillin-susceptible S. pneumoniae. Blood cultures were sterile. The patient was given penicillin G (3 million units iv q.i.d.) and un-
derwent surgical exploration 48 h after admission to the hospital because of the rapid extension of the cutaneous lesions and the persistence of high fever, chills, and worsening sepsis. Initial surgical exploration revealed purulent collections of fluid and inflated tissue alongside the deep fascias. Strep. pneumoniae was recovered from cultures of intraoperative wound aspirate specimens. The patient subsequently underwent daily surgical debridement because of persistent necrosis of skin and of subcutaneous tissue. On hospital day 19, a skin graft was performed; the patient made an uneventful recovery and was discharged on hospital day 24.

Necrotizing fasciitis of the limbs following minor trauma is usually caused by β-hemolytic streptococci or polymicrobial flora (aerobic and anaerobic) that include streptococci. Strep. pneumoniae is a distinctly unusual etiologic agent. It has been documented by results of cultures of blood samples or wound aspirates in a few reports [1,2]. Most of the patients described in these reports had severe underlying disease and/or were immunocompromised because of drug abuse, diabetes, chronic renal failure, systemic lupus erythematosus, hypocomplementemia, or underlying coagulopathy. In several of these patients, necrotizing fasciitis appeared to be associated with the administration of systemic anti-inflammatory agents, either steroids or NSAIDs.

The relationship between the systemic administration of NSAIDs and the risk of severe cutaneous infection has been debated in the literature since the 1980s [1,3]. A recent case-control study of pediatric patients with varicella suggests that an increased risk of necrotizing fasciitis is associated with oral administration of NSAIDs to patients with cutaneous lesions [4]. Our patient did not take NSAIDs systemically but only applied them topically, which is an unusual circumstance to find associated with necrotizing fasciitis. In none of the previously described cases of necrotizing fasciitis were anti-inflammatory agents administered topically. The case we describe suggests that the caution applied to the use of systemic NSAIDs should be extended to the use of topical NSAIDs to treat patients who sustain minor trauma and have skin lesions.

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Clusters of Cases of Invasive Aspergillosis in Transplant Units: Nosocomial Spread or Enhanced Virulence?

Sir—I read with interest the report by Pegues et al. [1] in which the authors described what appeared to be an episode of cross-infection with Aspergillus fumigatus among patients on a liver transplant unit. Pegues et al. may not have been aware of a similar episode, on a renal transplant ward, that we documented in 1994 [2]. We also were able to show, by molecular typing techniques, that the strains infecting the patients appeared to be identical to each other but different from environmental isolates. The intriguing and unresolved issue that is highlighted by both these reports is whether the cases described represent “chance” infection by the prevalent strain or whether they are indicative of the fact that some strains of Aspergillus are intrinsically more virulent. If the latter is correct, these cases might be explained by an outbreak due to a common source rather than by cross-infection, a distinction that is of obvious practical importance.

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Efavirenz-Associated Severe Hyperlipidemia

Sir—Efavirenz is a nonnucleoside-analog reverse-transcriptase inhibitor that is used in combination with nucleoside-analog reverse-transcriptase inhibitors for the treatment of HIV-infected patients. Efavirenz mainly has neuropsychiatric and cutaneous side effects. The metabolic effects of efavirenz have been poorly described, and only a few studies have shown that efavirenz could be associated with an increase in plasma levels of total cholesterol (TC) and triglycerides (TG) [1,2]. Recent reports of breast hypertrophy and gynecomastia among patients treated with efavirenz have suggested that this therapy could have some consequence in fat tissue [3,4]. For patients with lipodystrophy, if switching therapy from a regimen that