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Letter to Editor Regarding "Socioeconomic Disparities in Outcomes Following Conservative Treatment of Spinal Epidural Abscesses"

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Dear Editor-in-Chief,

We read with interest the article by Page et al that was published in the April 2023 issue of this journal.[1] The authors identified a new risk factor for medical treatment failure in patients with spinal epidural abscess (SEA).[1]

After reading the article, some questions arose to which we did not find an answer in the published material. It is not clear what content the authors put into the concept of primary SEA. SEA can be spontaneous or iatrogenic, and there are 2 types of spontaneous ones: (a) primary (from a remote focal infection by a hematogenous route [arterial or venous] or through lymphatic vessels directly in the epidural space) and (b) secondary—per continuitatem from an adjacent infected structure (spondylodiscitis or paravertebral abscess).[2] In primary spontaneous SEA, there is no involvement of the vertebral bodies and intervertebral discs, while in secondary spontaneous SEA, because of spondylodiscitis, there is bone destruction, which determines the different course of the disease and the outcome of the treatment.

There is a consensus in the literature that conservative treatment is applied to patients (a) with serious medical illness, (b) with extremely expansive SEA (holospinal), (c) with the absence of or minor neurological deficit, and (d) in the fourth stage for more than 72 hours.[3] According to Page et al, medical treatment was for patients with SEA without neurological deficit, but they did not specify what their somatic status was, how the causative agent of the infection was isolated, whether it was sensitive to the used antibiotics, and for how long the therapy was applied.[1]

Antibiotic treatment is usually applied for 12 weeks (6–8 weeks of parenteral antibiotics followed by 4–6 weeks of oral antibiotics).[4] According to a study by Xiong et al, the daily costs for conservative treatment of SEA are 12,325 ± 5930 USD, whereas the costs for operative treatment are 20,408 ± 7560 USD. These prices are undoubtedly unaffordable for uninsured patients.[5]

Medical treatment failure occurs when antibiotic therapy is inadequately selected and/or when it is insufficiently applied in time. According to Page et al, patients with failure of medical therapy underwent surgery within 38.4 ± 44.1 days after initial evaluation, but the authors did not specify whether this occurred during their first hospitalization or whether patients required a second one.[1] We are confident that adequate antibiotic therapy was administered during hospitalization, but it is likely that uninsured patients were discharged earlier and thus did not have the opportunity to obtain it.

In about 6%–49% of conservatively treated patients, progression of the neurological deficit is observed, necessitating a careful rethinking of the treatment method.[6] Particular attention when choosing the type of treatment should be paid to patients at high risk for a poor outcome of medical treatment. This includes patients with diabetes mellitus, methicillin-resistant infection, severe neurological symptoms, C-reactive protein >115 mg/L, high erythrocyte sedimentation rate values >95 mm/h, present bacteremia, and paravertebral pus collection.[7] Following the publication of Page et al, the insurance status of patients is added to the risk factors for the failure of conservative treatment, which is a significant contribution in the treatment of patients with SEA.

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