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LETTER TO THE EDITOR

Comment on Hernigou and Schuind: smoking as a predictor of negative outcome in diaphyseal fracture healing

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To the Editor,

We read the study reporting smoking as a predictor of negative outcome in diaphyseal fracture healing [1]. In previous reports, the common causes of nonunion are infection, obesity, smoking, distraction at fracture site, unstable fixation, wrong choice of implant, iatrogenic devitalisation of soft tissues, extent of bone loss and osteoporosis [2, 3]. The information including "diabetes mellitus, tobacco abuse, multiple trauma/polytrauma, associated skin injury (open fracture), presence or absence of head injury, and type of osteosynthesis" was extracted from the medical record by the authors. There is no mention about whether the patient had an infection. An infection can significantly increase the risk of nonunion in diaphyseal fracture healing [2, 3]. It may have an impact on the results and conclusions if a wound infection as risk factor for diaphyseal fracture healing was ignored in the study.

Unlike many risk factors such as medical problems, obesity and often smoking, which cannot be corrected before attempting a repair of the diaphyseal fracture, the presence of infection was usually seen in nonunion after primary surgical management [4, 5]. The surgeon always must keep in mind the possibility of infection, especially in fractures that initially were open. Baseline laboratory tests including erythrocyte sedimentation rate, C-reactive protein, and white blood cell count should be obtained in these cases.

In addition, 38 cases later required further surgery for a nonunion and constituted the studied group of nonunions in this study. But the author made no attempt to distinguish aseptic nonunion from infected nonunion. Determining whether a nonunion is infected is also a critical step in formulating an appropriate treatment plan.

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