



Letters to the Editor

The treatment of immature heterotopic ossification in spinal cord injury with combination surgery, radiation therapy and NSAID

Freebourn *et al*¹ report on the successful surgical resection of an immature heterotopic ossification (HO) in one paraplegic male patient and refer to a comprehensive review of the literature to justify their surgical indication. We are very confused with this article. Indeed, it has been demonstrated that alkaline phosphatase levels and mature roentgenographic appearance are poor reliable predictors of HO recurrence. The value of bone scans in planning recurrence-free surgery have been challenged by some authors.²⁻⁴ However, this conclusion is based on qualitative radionuclide bone images. Qualitative serial radionuclide bone images are not reliable to assess declining activity and maturity of HO.^{4,5} Quantitative data are required for accurate reflection of bone status.^{4,5} Steady-state in the uptake ratio (heterotopic/normal bone) followed by a steady-state plateau reflects the most useful index of maturation and allows surgical removal of bone with the lowest risk of recurrence.^{4,5} Therefore, a continuous decrease of the uptake ratio followed by a steady-state period covering at least two to three consecutive monthly examinations has been emphasized before any surgical procedure.⁵

We wondered about the short injury-HO surgery period reported in Freebourn's case report.¹ The natural history of HO in spinal cord injury patients may vary from 9 months to many years.⁶ Garland² and Stover³ reported on HO resection at an earliest mean time of 24 to 28 months post-injury. Moreover, it should be remembered that severe postsurgical complications (bleeding, osteomyelitis) are quite frequent (up to 45%).^{2,3} The author should be aware that the outcome of their patient is an exception, not the rule.

From our experience AINS alone can be of high value to diminish the HO progression during its acute phase.⁷

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In reply to B Schurch and AB Rossier

The authors appreciate your interest and remarks on our report. The goal of this case report and review of the literature regarding the diagnosis and treatment of heterotopic ossification (HO) in spinal cord injury was to question the long held recommendation of entertaining surgical resection of the HO only after it is felt to be mature. It is oftentimes difficult to palliate the patient who has suffered some functional loss secondary to the HO while waiting for the bone scan to show evidence of maturation. As we noted, successful early resection of immature HO in traumatic brain injury has been described.¹ The authors hoped that the presentation of this, albeit one, successful case would pique the curiosity of clinicians and result in prospective studies using combinations of surgery, nonsteroidal antiinflammatory agents, diphosphonates, and radiation for the treatment of immature HO (see last sentence of paper). We must continually question long held beliefs if we are to discover advancements.

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