Austin Rheumatology

Open Access

Austin Publishing Group

Editorial

# Spine Surgery in Rheumatologic Patients

**Joaquim AF[1]* and Appenzeller S[2]**

[1]Department of Neurology, Neurosurgical Division – Unicamp, Campinas-SP, Brazil

[2]Department of Medicine, Rheumatology Unit, Faculty of Medical Science, State University of Campinas, Campinas-SP, Brazil

***Corresponding author:** Andrei Fernandes Joaquim, Department of Neurology, Neurosurgical Division – Unicamp, Campinas-SP, Brazil

**Received:** October 30, 2016; **Accepted:** November 07, 2016; **Published:** November 09, 2016

## Editorial

The spine is frequently involved in rheumatic diseases, such as rheumatoid arthritis and spondiloarthritis [1-3]. Depending on localization and symptoms, surgery for decompression or stabilization of the vertebral column and its neural contents may be required [2,3].

There are some specific considerations that should be addressed before performing a spine surgery:

**1) Disease activity and extra-articular involvement:** Patients with high disease activity may have more extra-articular involvement and secondary injury to other organs and systems [2]. Ideally patient should be in disease remission before surgery. Extra-articular involvement is frequently observed in rheumatoid arthritis and, depending on extent and severity, it may influence surgical outcome. Uveitis, pulmonary fibrosis and cardiac involvements are associated with greater immunosuppressant needs and surgical complications [4]. In addition to a complete clinical evaluation for estimating surgical risk and complications, a complete pulmonary, cardiac and hematological evaluations, as well as assessment of kidney function, are recommended [4]. The thorough evaluation is essential for decreasing clinical complications and also to assess the risk and benefits of surgery.

**2) Glucocorticoids use**: Corticoids may worsen wound healing, as well leading to a higher rate of infection. Patients should be preferentially out of corticoids or with the lowest dose as possible. Patients on chronic glucocorticoid therapy can have suppressed hypothalamic-pituitary adrenal axis. Special consideration is necessary, once these patients may need perioperative supplementation.

**3) Disease modifying antirheumatic drugs (DMARDs) and biologic agents:** The continuation of methotrexate use appears to be safe in the perioperative period [1,5-8]. However, for DMARDs, the results are conflicting and their use must be weighed against the risks of infections and wound problems. If possible, some authors recommended to discontinue DMARDs for 2 to 4 weeks before surgery and restarted 1 to 2 weeks after surgery [1,6-8]. The decision to withheld DMARDs must be made with the rheumatologist considering each specific case. Biologic agents such as anti-TNF increase susceptibility to infections and these facts must be considered when deciding for surgical treatment in patients with rheumatologic diseases [1,6-8].

**4) Antiplatelet and anticoagulants:** It is strongly recommended that aspirin should be withheld about 7 days before surgery once it is a nonreversible platelet inhibitor [4]. Other antiplatelet, nonsteroid anti-inflammatory drugs and anticoagulants may be withheld for duration of 5 times their specific half-life. Due to the complexity of new anticoagulants drugs, specific hematological consultation may be recommended.

**5) Comorbidities:** Premature atherosclerosis due to systemic inflammation and renal impairment due to prolonged anti-inflammatory use are frequently observed comorbidities and should be taken into considerations and evaluated before surgery [4].

Taken all these points into consideration and performing a complete evaluation are necessary to minimize surgical morbidity after elective spinal surgery in rheumatologic patients, improving outcome and clinical results.

## References

1. Grennan DM, Gray J, Loudon J, Fear S. Methotrexate and early postoperative complications in patients with rheumatoid arthritis undergoing elective orthopaedic surgery. Ann Rheum Dis. 2001; 60: 214-217.
2. Joaquim AF, Appenzeller S. Cervical spine involvement in rheumatoid arthritis – a systematic review. Autoimmun Rev. 2014; 13: 1195-1202.
3. Joaquim AF, Ghizoni E, Tedeschi H, Appenzeller S, Riew KD. Radiological evaluation of cervical spine involvement in rheumatoid arthritis. Neurosurg Focus. 2015; 38: E4.
4. Krauss WE, Bledsoe JM, Clarke MJ, Nottmeier EW, Pichelmann MA. Rheumatoid arthritis of the craniovertebral junction. Neurosurgery. 2010; 66: 83-95.
5. Perhala RS, Wilke WS, Clough JD, Segal AM. Local infectious complications following large joint replacement in rheumatoid arthritis patients treated with methotrexate versus those not treated with methotrexate. Arthritis Rheum. 1991; 34: 146-152.
6. Pieringer H, Stuby U, Biesenbach G. Patients with rheumatoid arthritis undergoing surgery: how should we deal with antirheumatic treatment? Semin Arthritis Rheum. 2007; 36: 278-286.
7. Rosandich PA, Kelley JT 3rd, Conn DL. Perioperative management of patients with rheumatoid arthritis in the era of biologic response modifiers. Curr Opin Rheumatol. 2004; 16: 192-198.
8. Sany J, Anaya JM, Canovas F, et al. Influence of methotrexate on the frequency of postoperative infectious complications in patients with rheumatoid arthritis. J Rheumatol. 1993; 20: 1129-1132.




**Citation:** Joaquim AF and Appenzeller S. Spine Surgery in Rheumatologic Patients. Austin Rheumatol. 2016; 1(1): 1002.