

# Grade-III Paraplegia in Spinal Tuberculosis

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Dear Editor,

We have read with great interest the published article by Hussain T. entitled "Grade-III Paraplegia in Spinal Tuberculosis: Follow up of A Case Report and Review of Literature" [1]. In this good paper the author presents his experience on a case with spinal tuberculosis which could not be diagnosed in the early stages and supported an approach of nonoperative treatment over surgery, where the patient had progressive paralysis [1].

However, we think that some more points should be discussed on decision making and therapy planning.

Spinal tuberculosis is the most common and the worst form of tuberculosis lesions in the skeleton [2-4]. If the lesion is limited in the vertebrae and if there are no other complications, triple-drug anti-tuberculous chemotherapy can play a main role to treat tuberculosis [5]. However, with proper indications, surgical procedures are superior in the prevention of neurological deterioration, maintenance of stability and early recovery [3-6].

Oguz et al., [4] reported total 76 cases with spinal tuberculosis who had an excellent recovery without development of any neurological deterioration. Further, they developed an effective classification system named GATA.

In the mentioned case report, authors mentioned that the patient's treatment period persisted about 18 months. According to us this period is so long and dangerous. We believe that the best treatment method for this patient was apply surgical treatment at the same time anti tuberculous therapy at first diagnosis time. This new classification system (GATA) can be considered as a practical guide for spinal tuberculosis treatment planning in all countries.

## REFERENCES

- [1] Hussain T. Grade-III Paraplegia in Spinal Tuberculosis: Followup of A Case Report and Review of Literature. *J Clin Diagn Res.* 2014;8(3):148-50
- [2] Boachi-Adjei O, Squillante RG. Tuberculosis of the spine. *Orthop Clin North Am.* 1996;27:95-103.
- [3] Rezai AR, Lee M, Cooper PR. Modern management of spinal tuberculosis. *Neurosurgery.* 1995;36:87-97.
- [4] Oguz E, Sehirlioglu A, Altinmakas M, Ozturk C, Komurcu M, Solakoglu C. A new classification and guide for surgical treatment of spinal tuberculosis. *Int Orthop.* 2008;32:127-33.
- [5] Moon MS, Moon YW, Moon JL, Kim SS, Sun DH. Conservative treatment of tuberculosis of the lumbar and lumbosacral spine. *Clin Orthop.* 2002;398:40-49.
- [6] Ghadouane M, Elmansari O, Bousalmame N, Lezrek K, Aouam H, Moulay I. Role of surgery in the treatment of Pott's disease in adults. Apropos of 29 cases. *Rev Chir Orthop Reparat Appar Mot.* 1996;82:620-28.

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## AUTHOR IN REPLY TO THE COMMENTS

The duration of treatment, surgical indications, and inpatient care for Pott's disease have evolved. Various opinions exist regarding the treatment of choice - conservative chemotherapy or a combination of chemotherapy and surgery. The treatment decision should be individualized for each patient [1].

Because of the risk of deformity exacerbations, children with Pott disease should undergo long-term follow-up until their entire growth potential is completed [2]. Late-onset complications such as reactivation, instability or deformity are seen in older patients.

The authors are of the view that the treatment period of 18 months is long and dangerous.

Combination of Rifampicin, Isoniazid, Ethambutol and Pyrazinamide for 2 months followed by a combination of Rifampicin and Isoniazid for a total period of 6, 9, 12 or 18 months is the most frequent protocol used for treatment of spinal tuberculosis [3]. Tuli's middle path regimen is followed with results.

Short-course chemotherapy regimens have been demonstrated to have excellent results except in patients aged less than 15 years with an initial angle of kyphosis of more than 30 degrees whose kyphosis increased substantially [4].

While many patients are managed non-operatively and all require the above mentioned management, the clinician should be vigilant to those who require additional surgical decompression and stabilisation. Instability with both anterior and posterior column involvement requires urgent intervention. The neurological indications are less clear as medical treatment alone can reverse paraparesis [5].

Deteriorating neurological status requires surgical consideration and neurological recovery may well be accelerated with decompression.

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## REFERENCES

- [1] Zhang X, Ji J, Liu B. Management of spinal tuberculosis: a systematic review and meta-analysis. *J Int Med Res*. 2013;41(5):1395-1407.
- [2] Rajasekaran S, Prasad Shetty A, Dheenadhayalan J, et al. Morphological changes during growth in healed childhood spinal tuberculosis : a 15-year prospective study of 61 children treated with ambulatory chemotherapy. *J Pediatr Orthop*. 2006;26(6):716-24.
- [3] Rasouli MR, Mirkoohi M, Vaccaro AR, Yarandi KK, Rahimi-Movaghar V. Spinal tuberculosis: diagnosis and management. *Asian Spine J*. 2012;6(4):294-308.
- [4] Parthasarathy R, Sriram K, Santha T, Prabhakar R, Somasundaram PR, Sivasubramanian S. Short-course chemotherapy for tuberculosis of the spine. A comparison between ambulant treatment and radical surgery--ten-year report. *J Bone Joint Surg Br*. 1999;81(3):464-71.
- [5] R Dunn. The medical management of spinal tuberculosis. *SA Orthopaedic Journal*. 2010;9(1):37-41.