

Tibiototalcaneal (ankle & subtalar) Arthrodesis By Distal Femoral Nail

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The report by Vyawahare et al [1] mentions retrograde IMN across calcaneus, talus and tibia as a good and effective technique for Tibiotalar and Talocalcaneal fusion. In truth it achieves only stabilization of these joints and has been practised for years as a palliative measure in cases where open surgery cannot be done either due to medical problems or local diseases such as Neuropathic conditions involving the joints. At the maximum it may create condition for extra articular fibrous fusion. Intra- articular fusion is also reported by some authors using external fixation [2]. External fixation has been used in neuropathic joints more often as a means to achieve cosmetic appearance to normal, besides achieving extra or intra- articular fusion [3,4]. Retrograde intramedullary nailing has also been used with good functional result [5]. Thus both external and internal fixation can be used with variable success in Charcot joints, though external support may be needed in rehabilitation period.

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References

1. Vyawahare S, Mohagaonkar R, Phute U, Gursale A R. Tibiototalcaneal(ankle & subtalar) Arthrodesis By Distal Femoral Nail. Journal of Trauma and Orthopaedic Surgery July-Sep 2018;13(3): 25-27
2. Wang JC. Use of External fixation in the reconstruction of the Charcot foot and ankle. Clin Podiatr Med Surg. 2003 Jan;20(1):97-117
3. Fibrin J et al. Arthrodesis with external fixation in the unstable or misaligned Charcot ankle in patients with diabetes mellitus. Int J Low Extreme Wounds 2007 June; 6(2):102-7
4. Panagakos P, Ullom N, Boc SF. Salvage arthrodesis for Charcot arthropathy. Clin Podiatr Med Surg. 2012 Jan ;29(1):115-35
5. Chraim M et al. mid term follow-up of patients with hind foot arthrodesis with retrograde coompression intramedullary nail in Charcot neuroarthropathy of the hind foot. Bone Joint J.2018 Feb; 100 B(2); 190-196

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References

- Schepers T, Van Zuuren WJ, Van Den Bekerom MPJ, Vogels LMM, Van Lieshout EMM. The management of acute distal tibio-fibular syndesmotic injuries: Results of a nationwide survey. *Injury*. 2012;43(10):1718–23.
- Zalavras C, Thordarson D. Ankle syndesmotic injury. *J Am Acad Orthop Surg*. 2007;15(6):330–9.
- Lin C-F, Gross MT, Weinhold P. Ankle Syndesmosis Injuries: Anatomy, Biomechanics, Mechanism of Injury, and Clinical Guidelines for Diagnosis and Intervention. *J Orthop Sport Phys Ther*. 2006;36(6):372–84.
- Weening B, Bhandari M. Predictors of functional outcome following transsyndesmotic screw fixation of ankle fractures. *J Orthop Trauma*. 2005;
- M.P.J. van den B, M. H, H.W. B, C.N. van D. Operative aspects of the syndesmotic screw: Review of current concepts. *Injury* [Internet]. 2008;39(4):491–8. Available from: <http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L50080491%5Cnhttp://dx.doi.org/10.1016/j.injury.2007.11.425%5Cnhttp://sfxhosted.exlibrisgroup.com/dal?sid=EMBASE&issn=00201383&id=doi:10.1016%2Fj.injury.2007.11.425&title=Operative+>
- de-las-Heras Romero J, Alvarez AML, Sanchez FM, Garcia AP, Porcel PAG, Sarabia RV, et al. Management of syndesmotic injuries of the ankle. *EFORT Open Rev*. 2017;
- McBryde A, Chiasson B, Wilhelm A, Donovan F, Ray T, Bacilla P. Syndesmotic screw placement: A biomechanical analysis. *Foot Ankle Int*. 1997;
- Huber T, Schmoelz W, Bölderl A. Motion of the fibula relative to the tibia and its alterations with syndesmosis screws: A cadaver study. *Foot Ankle Surg*. 2012;
- Jordan TH, Talarico RH, Schuberth JM. The radiographic fate of the syndesmosis after trans-syndesmotic screw removal in displaced ankle fractures. *J Foot Ankle Surg*. 2011;
- Gennis E, Koenig S, Rodericks D, Otlans P, Tornetta P. The fate of the fixed syndesmosis over time. *Foot Ankle Int*. 2015;
- Qamar F, Kadakia A, Venkateswaran B. An Anatomical Way of Treating Ankle Syndesmotic Injuries. *J Foot Ankle Surg*. 2011;
- Hamid N, Loeffler BJ, Braddy W, Kellam JF, Cohen BE, Bosse MJ. Outcome after fixation of ankle fractures with an injury to the syndesmosis. *J Bone Joint Surg Br*. 2009;
- Andersen MR, Frihagen F, Madsen JE, Figved W. High complication rate after syndesmotic screw removal. *Injury*. 2015;
- Bava E, Charlton T, Thordarson D. Ankle fracture syndesmosis fixation and management: the current practice of orthopedic surgeons. *Am J Orthop (Belle Mead NJ)*. 2010;
- Kaye RA. Stabilization of ankle syndesmosis injuries with a syndesmosis screw. *Foot Ankle*. 1989;
- D'Ingenmans SA, Rammelt S, White TO, Goslings JC, Schepers T. Should syndesmotic screws be removed after surgical fixation of unstable ankle fractures? a systematic review. *Bone and Joint Journal*. 2016.
- Schepers T, Van Der Linden H, Van Lieshout EMM, Niesten DD, Van Der Elst M. Technical aspects of the syndesmotic screw and their effect on functional outcome following acute distal tibiofibular syndesmosis injury. *Injury*. 2014;
- Court-Brown CM, Caesar B. Epidemiology of adult fractures: A review. *Injury*. 2006.
- Bell DP, Wong MK. Syndesmotic screw fixation in Weber C ankle injuries-should the screw be removed before weight bearing? *Injury*. 2006;
- Schepers T, Van Lieshout EMM, de Vries MR, Van der Elst M. Complications of Syndesmotic Screw Removal. *Foot Ankle Int*. 2012;
- Tucker A, Street J, Kealey D, McDonald S, Stevenson M. Functional outcomes following syndesmotic fixation: A comparison of screws retained in situ versus routine removal - Is it really necessary? *Injury*. 2013;
- Sun H, Luo CF, Zhong B, Shi HP, Zhang CQ, Zeng BF. A prospective, randomised trial comparing the use of absorbable and metallic screws in the fixation of distal tibiofibular syndesmosis injuries: Mid-term follow-up. *Bone Jt J*. 2014;
- van der Eng DM, Schep NWL, Schepers T. Bioabsorbable Versus Metallic Screw Fixation for Tibiofibular Syndesmotic Ruptures: A Meta-Analysis. *Journal of Foot and Ankle Surgery*. 2015.
- Xie Y, Cai L, Deng Z, Ran B, Hu C. Absorbable Screws Versus Metallic Screws for Distal Tibiofibular Syndesmosis Injuries: A Meta-Analysis. *Journal of Foot and Ankle Surgery*. 2015.

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