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ACTA ORTHOPAEDICA et TRAUMATOLOGICA TURCICA

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## AIMS AND SCOPE

Acta Orthopaedica et Traumatologica Turcica (AOTT) is an international, scientific, open access periodical published in accordance with independent, unbiased, and double-blinded peer-review principles. The journal is the official publication of the Turkish Association of Orthopaedics and Traumatology, and Turkish Society of Orthopaedics and Traumatology. It is published bimonthly in January, March, May, July, September, and November. The publication language of the journal is English.

The aim of the journal is to publish original studies of the highest scientific and clinical value in orthopedics, traumatology, and related disciplines. The scope of the journal includes but not limited to diagnostic, treatment, and prevention methods related to orthopedics and traumatology. Acta Orthopaedica et Traumatologica Turcica publishes clinical and basic research articles, case reports, personal clinical and technical notes, systematic reviews and meta-analyses and letters to the Editor. Proceedings of scientific meetings are also considered for publication.

The target audience of the journal includes healthcare professionals, physicians, and researchers who are interested or working in orthopedics and traumatology field, and related disciplines.

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## FROM THE EDITOR

Dear AOTT readers,

Looking back to last issue, “Effects of tamoxifen therapy on sciatic nerve crush injury: An experimental study in rats, by Akar et al” and “Effect of malpractice claims on orthopedic and traumatology physicians in Turkey: A survey study, by Dirvar et al.” were the leading articles in terms of “read and download”. Interestingly case reports are always in the top five “read and download” type of articles. Due to the journal’s limited space editors of AOTT have been very selective in accepting case reports, and I must admit it will be as such in the near future. Although case reports are considered as level V evidence in the level of evidence taxonomy, they are among the most read and referred to articles in daily practice.

Bignall, clearly states in Lancet paper as “case reports have historically been important in (a) recognizing new, rare and unknown diseases, (b) evaluating therapeutic effects, adverse events, surveillance and costs of interventions and (c) improving problem-based medical education”.

In 2013, Consensus-based Clinical Case Reporting Guideline Development (CARE) were developed to improve the quality and completeness of a case report thus a CARE guideline was published. I would recommend authors willing to submit case reports, strongly adhere to CARE guidelines. Furthermore, AOTT will be ready to accept short video clips as a supplement to case reports.

In this issue of AOTT, I am sure you will find interesting articles to read and download.

Haluk Berk MD  
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## References

1. Bignall J, Horton R. Learning from stories-The Lancet’s case reports. *Lancet*. 1995;346:1246. [\[Crossref\]](#)
2. Gagnier J, Kienle G, Altman DG, et al. The CARE guidelines: consensus-based clinical case report guideline development. *J Clin Epidemiol*. 2014;67(1):46-51. [\[Crossref\]](#)
3. <http://www.care-statement.org/care-checklist.html> reached on 22 May 2021.