Accepted Manuscript

Heterotopic ossification and lessons learned from fifteen years at war: A review of therapy, novel research, and future directions for military and civilian orthopaedic trauma



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PII:	S8756-3282(18)30066-8
DOI:	doi:10.1016/j.bone.2018.02.009
Reference:	BON 11562
To appear in:	Bone
Received date:	9 February 2018
Accepted date:	13 February 2018

Please cite this article as: Benjamin W. Hoyt, Gabriel J. Pavey, Benjamin K. Potter, Jonathan A. Forsberg, Heterotopic ossification and lessons learned from fifteen years at war: A review of therapy, novel research, and future directions for military and civilian orthopaedic trauma. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Bon(2017), doi:10.1016/j.bone.2018.02.009

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ACCEPTED MANUSCRIPT

FORMAT: BONE

Title: Heterotopic Ossification and Lessons Learned from Fifteen Years at War: A Review of Therapy, Novel Research, and Future Directions for Military and Civilian Orthopaedic Trauma

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Conflict of Interest Statement: Each author certifies that he has no commercial associations (e.g., consultancies, stock ownership, equity interest, patent/licensing arrangements, etc.) that might pose a conflict of interest in connection with the submitted article.

Funding Sources: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors

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Abbreviations: HO, Heterotopic ossification; IL, interleukin; MCP, Monocyte chemoattractant protein; TBI, Traumatic brain injury; BMP, Bone morphogenetic proteins; MSC, Mesenchymal stem cells, CXCR4, C-X-C chemokine receptor type 4; CD, Cluster of differentiation; VEGF, Vascular endothelial growth factor; MRSA, Methicillin-resistant Staphylococcus aureus; MMP, Matrix metalloproteinases; PDGF, Platelet derived growth factor; FDGF, Fibroblast derived growth factor; TGF, Transforming growth factor; FDA, Food and Drug Administration; NSAID, Nonsteroidal anti-inflammatory drugs; COX, Cyclooxygenase; DNA, Deoxyribonucleic acid; MAR, Mineral apposition rate; ACL, Anterior cruciate ligament; RAR-y, Retinoic acid receptor gamma; CT, Computed tomography

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