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3 1 **ABSTRACT**
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6 2 **Objective:** To investigate the effect of the use of biologic disease-modifying anti-rheumatic
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9 3 drugs (bDMARDs) on surgical site infection (SSI) and delayed wound healing (DWH) in
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12 4 rheumatoid arthritis (RA) patients undergoing orthopaedic surgery.
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16 5 **Patients and Methods:** We retrospectively reviewed the records of 965 elective orthopaedic
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19 6 procedures undertaken in RA patients. The incidences of SSI and DWH were compared between
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22 7 the bDMARDs user and non-user groups. Subsequently, univariate and multivariate logistic
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25 8 regression analyses were performed to evaluate risk factors for SSI and DWH after propensity
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28 9 score (PS) matching. The incidence of postoperative flare-up was also examined.
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32 10 **Results:** In 965 procedures, SSI and DWH were identified in 12 and 28 cases, respectively. SSI
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35 11 and DWH were identified in 3 and 17 of 414 procedures treated with bDMARDs, respectively.
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38 12 Flare-up occurred in 21 cases. PS matching identified 315 cases in both groups, with no
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41 13 significant difference in incidence between the two groups. No risk factors for SSI were
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44 14 identified, whereas age, diabetes mellitus, foot and ankle surgery and a history of
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47 15 musculoskeletal-related infection were identified as risk factors for DWH.
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51 16 **Conclusion:** The use of bDMARDs was not associated with an increased incidence of SSI or
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54 17 DWH, with the incidence of flare-up being relatively low.
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