

Durvulumab-induced rheumatoid arthritis

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Introduction: Durvulumab is a type of checkpoint inhibitor used in cancer immunotherapy and approved to treat different types of cancers including lung, bladder and biliary tract cancers. It inhibits a human immunoglobulin monoclonal antibody which blocks the interaction between programmed cell death ligand (PD-L1) with the PD-1 (CD279).

Case Presentation: Our patient was a 70 year old female patient who was diagnosed with biopsy-proven Stage 3A (T1N2M0) non-small cell lung cancer of left upper lobe. She initially underwent radiation therapy as well as induction chemotherapy with combination of cisplatin and premetrexed. Patient then received initial consolidation immunotherapy with durvalumab and only after its first dose, she developed incapacitating migratory arthralgias and myalgias, within a week. She presented to ER and her labs were only significant for elevated acute-phase reactants ESR and CRP, along with concerning elevation of anti-CCP and RF levels. She had never been diagnosed with rheumatoid arthritis before. After review of symptoms and lab findings and evaluation by rheumatologist, she was diagnosed as case of rheumatoid arthritis, secondary to durvulumab. She was started on methotrexate and tapered dose of steroids which resolved her symptoms to a great extent. Not surprisingly, her immunotherapy regimen was switched to osimertinib (an epidermal growth factor tyrosine kinase inhibitor).

Conclusion: As per our literature review, this is the first-ever reported case of rheumatoid arthritis caused by durvulumab.