

Onco-Rheumatology: Bridging Cancer Therapy and Autoimmune Care

Introduction

Onco-rheumatology is an emerging interdisciplinary field that focuses on the intersection between cancer and rheumatic diseases. With the rapid advancement of cancer immunotherapies—particularly immune checkpoint inhibitors—there has been a notable increase in immune-related adverse events (irAEs), many of which mimic or trigger rheumatic conditions. This evolving specialty aims to better understand, diagnose, and manage these complex interactions to improve patient outcomes.

Scope and Clinical Challenges

Cancer therapies, especially checkpoint inhibitors targeting CTLA-4, PD-1, and PD-L1 pathways, enhance the immune system's ability to attack tumors. However, this immune activation can also lead to unintended inflammation affecting joints, muscles, and connective tissues. Patients may develop conditions resembling rheumatoid arthritis, polymyalgia rheumatica, or myositis.

Onco-rheumatology addresses two major clinical scenarios: managing rheumatic complications induced by cancer therapy and treating patients with pre-existing autoimmune diseases who develop cancer. Balancing effective tumor control with the risk of exacerbating autoimmune responses remains a significant challenge.

Diagnosis and Management

Early recognition of rheumatic irAEs is essential to prevent long-term complications. Diagnosis often requires collaboration between oncologists and rheumatologists, combining clinical evaluation with laboratory and imaging studies.

Treatment strategies typically involve corticosteroids and immunosuppressive agents, tailored to the severity of symptoms. Importantly, clinicians must carefully adjust therapy to avoid compromising the anti-tumor efficacy of immunotherapy. In some cases, biologic agents targeting specific inflammatory pathways are used.

Future Directions

The field of onco-rheumatology is rapidly evolving, with ongoing research focused on identifying predictive biomarkers for irAEs and developing targeted therapies that minimize toxicity. Multidisciplinary care models and international collaboration will be key to advancing this specialty.

Conclusion

Onco-rheumatology represents a vital convergence of oncology and rheumatology in the era of immunotherapy. By addressing the dual challenges of cancer treatment and immune-mediated complications, this field plays a crucial role in optimizing patient care. Continued research and integrated clinical approaches will be essential to fully realize its potential in modern medicine.

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