DRESS syndrome: Unmasking a rare but complex drug reaction.

Ayushman Atah*

Department of Pediatrics, School of Medicine, Ege University, İzmir, Turkey

Introduction

In the complex landscape of adverse drug reactions, one rare but severe condition stands out: Drug Reaction with Eosinophilia and Systemic Symptoms commonly referred to as DRESS syndrome. This condition is characterized by a constellation of symptoms that can range from a rash and fever to life-threatening organ involvement. Understanding DRESS syndrome is crucial not only for healthcare providers but also for patients who may unknowingly be at risk. DRESS syndrome is an idiosyncratic and potentially life-threatening reaction to certain medications. What sets it apart from more common drug reactions is its delayed onset, often occurring weeks to months after the initiation of the culprit drug. DRESS is characterized by a complex interplay of immune responses, primarily involving T cells [1].

One hallmark of DRESS syndrome is eosinophilia, an elevated count of eosinophils, a type of white blood cell, in the bloodstream. However, this is just one piece of the puzzle. The syndrome encompasses a wide spectrum of clinical features, which can vary greatly from one individual to another. Common manifestations include skin rashes, fever, swollen lymph nodes, and involvement of internal organs such as the liver, kidney, or heart. DRESS syndrome is most often triggered by specific classes of medications, with anticonvulsants (used to treat epilepsy) and certain antibiotics being the most commonly implicated. Drugs such as phenytoin, carbamazepine, allopurinol, sulfonamides, and minocycline have been associated with DRESS syndrome. However, it's essential to note that the syndrome is not exclusive to these medications, and cases have been reported with other drugs as well [2].

Diagnosing DRESS syndrome can be challenging due to its variable presentation and delayed onset. Patients may initially present with flu-like symptoms and a skin rash, which can be mistaken for other common illnesses. Eosinophilia, a common feature, may not always be present, further complicating diagnosis. Healthcare providers must consider a patient's medication history and clinical symptoms to suspect DRESS syndrome. Diagnostic criteria, such as the RegiSCAR criteria, can help guide clinicians in making an accurate diagnosis. Skin biopsies, blood tests, and imaging studies may be necessary to rule out other conditions and assess organ involvement [3].

Once diagnosed, the primary treatment for DRESS syndrome involves discontinuing the offending medication immediately. In severe cases, hospitalization may be required to manage complications and provide supportive care. Glucocorticoids (steroids) are often prescribed to suppress the immune response and reduce inflammation. However, the use of steroids in DRESS syndrome is a subject of debate among healthcare providers, as their benefits and risks must be carefully weighed. The duration of treatment varies from patient to patient, and a gradual tapering of steroids is typically necessary to prevent relapse. In some instances, other immunosuppressive medications may be considered for individuals with severe organ involvement or those who do not respond to steroids [4].

While DRESS syndrome remains a rare occurrence, its potential severity underscores the importance of cautious medication management and the need for continued research to better understand its underlying mechanisms and improve treatment outcomes. As healthcare professionals and patients work together, the hope is to minimize the risks associated with DRESS syndrome and ensure safer medication practices for all [5].

Conclusion

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome is a rare but potentially life-threatening adverse drug reaction characterized by its delayed onset and complex clinical presentation. It serves as a reminder of the diverse ways in which the human body can react to medications. Awareness of DRESS syndrome is vital for both healthcare providers and patients. Patients should inform their healthcare providers about any adverse reactions to medications promptly, enabling early diagnosis and intervention. Healthcare providers, in turn, should consider DRESS syndrome when evaluating patients with unexplained skin rashes, fever, or multi-organ involvement, especially in the context of recent medication use.

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***Correspondence to:** Ayushman Atah, Department of Pediatrics, School of Medicine, Ege University, İzmir, Turkey, E-mail: atahayuch@gmail.com

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