

The Use of Dupilumab in Treatment of Hidradenitis Suppurativa: A Scoping Review of Emerging Evidence

As an inflammatory skin disease, hidradenitis suppurativa (HS) presents with painful nodules that can form sinus tracts due to an underlying process of follicular occlusion leading to rupture, chronic inflammation, and tunnelling. This follicular burst leads to the release of TNF-alpha, IL-1, IL-17, and possibly IL-4/IL-13. These cytokines can trigger a robust, aggressive immune response. From this, recurrent inflammation forms painful nodules that can develop into abscesses, explaining the pain, swelling, and drainage with which patients can present to a dermatology clinic. Repeated inflammation leads to tissue destruction, and the body responds by forming epithelialized tunnels, making HS very hard to treat. The natural healing course can lead to fibrosis, which can result in permanent damage. Dupixent is a drug that targets IL-4 and IL-13, which may affect inflammation and tissue remodeling. Dupilumab does this by functioning as a monoclonal antibody to antigens on IL-4 and IL-13. The purpose of this scoping review is to synthesize the existing literature on dupilumab and its role in treating hidradenitis suppurativa by examining clinical outcomes, notably the prevention of sinus tract formation, which is the natural course of the disease as stated previously. Through using databases such as PubMed, Embase, Google Scholar, and the Cochrane library, relevant studies were identified. The research and evidence consist mainly of case reports and case series, and the research available is limited in scope. This exposes a significant gap in quality data related to the use of dupilumab and its role in the pathophysiology of sinus tract formation that demonstrates promising clinical results. Dupilumab is a newer drug with promising efficacy in treating hidradenitis suppurativa. Further studies are needed to better delineate its role in the management of this disease, in the formation of sinus tracts, and in normal disease progression.