

## PNEUMONIA CAUSED BY PARASITIC AGENTS IN IMMUNOCOMPROMISED HOST

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**Background.** Pneumonia continues to be a major global source of morbidity and mortality worldwide. In addition to bacterial, viral and fungal etiologies, parasite agents also contribute to the pneumonia burden within those immunocompromised (HIV/AIDS, transplant recipients, and chemotherapy patients). **Objective of the study.** To review scientific literature on the prevalence, pathogenesis, clinical manifestation, diagnosis, and treatment of parasite-induced pneumonia in immunocompromised host. **Material and methods.** Using databases including PubMed, MEDLINE, and Scopus, a thorough literature search was carried out with an emphasis on studies published between 2000 and 2023. The selection of studies was done on the basis of clinical data on immunocompromised populations, quality, and relevance. **Results.** Numerous parasitic agents, including *Toxoplasma gondii*, *Strongyloides stercoralis*, and

*Cryptosporidium species*, have been found to be the cause of pneumonia in immunocompromised persons. Pulmonary manifestations include interstitial pneumonia, lobar pneumonia, diffuse alveolar damage, or necrotizing pneumonia. Immunocompromised hosts that develop pneumonia from parasite agents face a complicated clinical challenge that calls for a high level of clinical suspicion, quick diagnostic testing, and targeted treatment measures. **Conclusions.** A multidisciplinary approach is necessary to improve results since clinical presentation varies and diagnostic challenges arise. It is necessary to conduct further research to create better diagnostic instruments and treatment plans for treating parasite-induced pneumonias in immunocompromised patients. **Keywords:** pneumonia, parasitic infections, immunocompromised hosts.

## DIAGNOSTIC CHALLENGES IN LOCAL ALLERGIC RHINITIS

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**Introduction.** Local allergic rhinitis (LAR) is a distinct type of rhinitis characterized by perennial or seasonal symptoms in the absence of systemic atopy. Its prevalence is notably higher in Mediterranean countries, with 36% of cases beginning in childhood. **Objective of the study.** To perform a literature review on the topic of LAR, its clinical manifestations, diagnostic issues and treatment. **Material and methods.** A literature search was performed, using key words "local allergic rhinitis, diagnostic challenges treatment and clinical manifestations. We used PubMed database and selected articles Published in 2012-2024. During the search the system identified 246 articles. After selection of most relevant ones published in English, we analyzed those how are published in last 6 years. **Results.** Many studies have suggested that a significant number of people with LAR begin to experience nasal symptoms in childhood. LAR has the same clinical manifestations as non-local allergic rhinitis such as rhinorrhea, sneezing and nasal itching. The

evidence of LAR has been increasing, particularly among pediatric and Asian demographics. These patients indeed present with a suggestive clinical background of allergic rhinitis despite negative skin prick tests and negative serum IgE tests for suspected allergens. Currently, the diagnosis can be confirmed through a positive reaction to the nasal allergen challenge (NAC), which is considered the gold standard for diagnosis. Also, we can use basophil activation test (BAT), and nasal cytology as a diagnostic test for the disease. The Treatment for LAR is comparable to that for AR, with demonstrated effectiveness and safety in allergen avoidance, medication, and allergen immunotherapy. **Conclusions.** This review strives to provide a comprehensive overview of the current understanding of LAR while identifying gaps in disease diagnosis and treatment that require attention. **Keywords:** Local allergic rhinitis LAR, nasal allergen challenge.