

The Impact of Poor Technique of Nasal Spray Uses Among Allergic Rhinitis Patients in Al-Kharj, Saudi Arabia: A Cross-Sectional Study

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ABSTRACT

Allergic rhinitis (AR) is a common condition with significant implications for quality of life. Intranasal corticosteroids (INCS) are the cornerstone of AR management, but their effectiveness depends on proper administration techniques. The aim of this study was to evaluate the impact of poor INCS technique on treatment efficacy, symptom control, and side effects among AR patients in Al-Kharj, Saudi Arabia. A cross-sectional study was conducted among patients with AR at Prince Sattam bin Abdulaziz University Hospital in Al-Kharj city, using a validated electronic questionnaire assessing demographics, INCS usage, and administration techniques. Pearson's chi-square test was employed to examine the difference between categorical variables. A total of 410 participants were involved in this study, of which 55.6% had AR, with 69.3% reporting INCS use. Improper techniques were common; 49.4% sprayed INCS straight, and only 22.1% directed it away from the nasal septum. Contralateral hand use and correct spray direction were associated with better effectiveness ($p < 0.05$). Side effects such as nasal dryness, bad taste in throat, and epistaxis were frequently reported. Improper INCS techniques significantly affect AR treatment outcomes. Structured educational programs by healthcare providers are essential to improve patient compliance and therapeutic success.

Keywords: Allergic rhinitis, intranasal corticosteroids, patient education, Saudi Arabia, technique compliance

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