

# The study of osteitic changes in CT paranasal sinus of atopic and non-atopic chronic rhinosinusitis

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## ABSTRACT

**Objective:** To study the osteitic changes in paranasal sinus walls in patient with the atopic and non-atopic chronic rhinosinusitis (CRS) by Computed Tomography (CT) scan evaluation using Lund Mackay staging system and Global Osteitis Scoring System. **Methods:** A retrospective study of 75 CRS patients whom underwent CT paranasal sinus as a part of the disease assessment before any sinonasal surgery from January 2015 until December 2020. Skin prick test is used to determine the atopy among the CRS group. 66 patients that had CT scans within the period and did not have CRS, facial trauma or sinonasal malignancy were included as a control group. The radiological findings for disease severity and osteitic changes in both atopic and non-atopic CRS and the control group were evaluated using Lund Mackay staging system and Global Osteitis Scoring system (GOSS). **Results:** There were more than half of CRS were atopic cases (n=41, 54.7%) with 64% (n=48) osteitis changes were seen in CRS group whereby only 0.03% (n=2) in the control group. The mean score for Lund Mackay was higher in non-atopic group which is 9.03 (SD=5.07) but the mean score for GOSS was higher in atopic group 10.90 (SD=10.50). **Conclusion:** There was no significant association in atopic status for CRS severity and osteitic changes from the radiological evaluation found in this study.