



HIGH RESOLUTION COMPUTED TOMOGRAPHY IN EVALUATION OF GROUND GLASS OPACITIES OF LUNG

Radiodiagnosis

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ABSTRACT

Ground-glass opacity (GGO) described on high-resolution Computed Tomography (HRCT) of the lung is —hazy increased attenuation of lung, with preservation of bronchial and vascular margins, caused by partial filling of air spaces, interstitial thickening, partial collapse of alveoli, normal expiration or increased capillary blood volume. HRCT help to differentiate clinical causes of GGO of lung.

The study was done using Siemens emotion 16 slice MDCT.

In my study of 60 patients, most common age group was 51-60 years having GGO with male predominance, Right upper lobe was most common location, and common etiological factor associated was infection.

HRCT is an effective diagnostic tool to characterize the abnormality and specify its location accurately. HRCT enables the evaluation of small interstitial changes, invisible on plain chest radiographs, and their assessment at the level of the lung lobule.

KEYWORDS

Ground Glass Opacity, GGO, HRCT Thorax, CT Scan

INTRODUCTION:-

GGO described on HRCT of the lung is —hazy increased attenuation of lung, with preservation of bronchial and vascular margins, caused by partial filling of air spaces, interstitial thickening, partial collapse of alveoli, normal expiration or increased capillary blood volume. It is less opaque than consolidation with preservation of bronchial and vascular markings. Most commonly disease GGOs are associated with widespread inflammatory or infiltrative lung disorders. Foal GGOs also called non-solid or part solid nodules are circumscribed areas of hazy lung opacity which are associated with early stage bronchoalveolar carcinoma.

AIMS AND OBJECTIVE:-

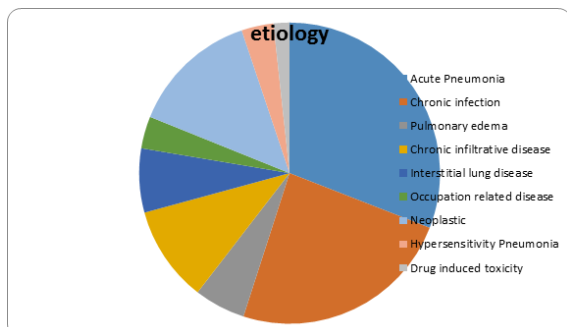
To differentiate clinical causes of ground glass opacities of lung by high resolution computed tomography.

MATERIAL AND METHODS:-

This study was done in radiology department of Dhiraj general hospital from January 2018 to August 2019. 60 patient was studied taking into consideration relevant clinical history and HRCT finding of ground glass opacity using Siemens emotion 16 slice MDCT.

RESULT AND DISCUSSION:-

Etiology	No. of cases	Percentage (%)
Acute Pneumonia	18	30
Chronic infection	14	23.34
Pulmonary edema	5	8.34
Chronic infiltrative disease	6	10
Interstitial lung disease	4	6.67
Occupation related disease	2	3.34
Neoplastic	8	13.34
Hypersensitivity pneumonitis (chronic and sub acute)	2	3.34
Drug induced toxicity	1	1.67



in my study of 60 patients, most common age group was 51-60 years (36.7%) having ground glass opacity, male predominance, more common in non-smokers (60%), common presenting symptom was chest pain/ tightness (35%), Type I (52%) GGO was common. Right upper lobe (41%) was most common location, common associated finding was reticular opacity and common etiological factor associated was infection (53.34%) followed by neoplasm (13.34%). High resolution CT scan of thorax is highly sensitive (100%) in diagnosing ground glass opacity whereas conventional radiography is less sensitive in evaluation of ground glass opacity.

In 1993, the significance of GGO was described by RemyJardin et al. [1], and Engeler et al. [2] published a pictorial essay of this entity. This pictorial essay illustrates the pathologic basis of ground-glass opacity and provides a guide to the differential diagnosis of the disorders that can produce this appearance.

CONCLUSION:-

Ground glass appearance though nonspecific, has role in differentiating infective, benign and malignant lung pathologies. High resolution computed tomography is an effective diagnostic tool to characterize the abnormality and specify its location accurately. HRCT enables the evaluation of small interstitial changes, invisible on plain chest radiographs, and their assessment at the level of the lung lobule.

REFERENCES:-

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- [2] Engeler CE, Ta.shjian JH, Trenkner SW, Walsh JW. Ground-glass opacity of the lung parenchyma: a guide to analysis with high-resolution CT. *AiR* 1993;160:249-251