V. Lung

Pulmonary Scintigam of Bronchial Asthma
(Classification of scintigrams of children with bronchial asthma)

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Pulmonary perfusion scintigraphy is a simple, safe and useful method in determining the disturbance of the arterial blood flow, especially in the cases of children. The scintigram often indicates impairment of the pulmonary arterial blood flow which can not be suspected by the conventional chest X-ray film.

Remarkable changes have been observed in the lung scintigram in the cases of bronchial asthma, in acute attack. We have investigated about 70 patients, who were suffering from asthmatic attack, by pulmonary scintigraphy.

All scintigrams which were taken during attacks showed some abnormalities.

In the symptom-free periods, most of the scintigrams were found to be normal, however some of them showed abnormalities.

It was observed that the defects of repeated attacks in one patient were not always in the same regions, that is, in each attack the localization of disturbances in the blood flow was not constant.

All scintigrams taken during attack could be divided into five different types: I. multiple, II. single, III. mixed, IV. complete unilateral, V. non focal lesion (diffusely decreased) type. The most frequent type is multiple, bilaterally, and about 40 percent of all.

Scintigram of Bronchial Asthma

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Localization and extension of the blood flow impairment in the infantile asthatic patient were determined by MAA scintiphoto in comparison with the phantom experiment. The impairment was studied in relation to severity of the attack and history of the patient.

1) The impairments were revealed most frequently in segment of upper and lower parts of the lung and rarely in dorsal middle parts.

2) Severity of the attack and distension of impairment were well correlated in slight and moderate attack including in remission, though it was not the case in severe attack remaining some discrepancies to be elucidated.

3) Numbers and distension of lesion which