

GALLIUM SCANNING IN SARCOIDOSIS

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The aim of the study was to assess the value of gallium scanning in pulmonary sarcoidosis. Twenty-nine whole body gallium scintigrams were performed on 26 patients. Region of interest quantitative counts were obtained over the lung, liver and thigh.

Increased gallium activity was present in the following areas in the 29 studies: Mediastinum 55%, lungs 41%, orbit 41%, liver 31%, parotids 24%, and spleen 21%. In a control group of 28 patients with gallium studies six were noted to have orbital activity. Unequivocal gut activity was noted in the 24 hour studies in 92% of this control group compared with only 40% in the positive sarcoid group. The gallium findings were compared with respiratory function tests and the results of broncho-alveolar lavage (BAL) performed concurrently with these studies. The latter are presented in a separate paper. Eighteen sarcoid patients had lung parenchyma x-ray changes and only 10 of these had abnormal gallium lung activity. One patient had a normal chest x-ray with abnormal gallium uptake.

All areas of abnormally increased uptake present in the later phase studies (48 and 72 hours) were detected in the 24 hour scintiphotos. Three patients had repeat studies. In two of these a further increase in gallium lung uptake was noted. One of these patients had clinical, respiratory function, and BAL evidence of progressive pulmonary parenchymal involvement. In the other there was lavage evidence only, of progression. In both of these patients there was significant resolution of hilar node involvement both in gallium studies and chest x-ray. Gallium lung uptake returned to normal in the third patient following a course of steroids and this correlated with clinical, respiratory function, and BAL results.

These studies suggest that gallium scanning may be of value in sarcoidosis, particularly in assessing progress of disease and response to treatment. The significance of the decreased bowel activity in many sarcoid patients is uncertain. Orbital activity is a non specific finding which does however warrant exclusion of sarcoid eye involvement. In this study late phase scintiphotos did not offer any advantage over 24 hour views. The numbers in the study are inadequate and further experience particularly in sequential patient studies is desirable to adequately assess the role of gallium scanning in the management of sarcoid disease.