



**FIGURE 1**  
Anterior view of chest 48 hr after intravenous gallium-67.

#### References

1. Vazquez R, Oates E, Sarno RC, Fay J, Gale DR. Gallium-67 breast uptake in a patient with hypothalamic granuloma (sarcoid). *J Nucl Med* 1988; 29:118-121.

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**REPLY:** Dr. Boxen's case and illustrations are interesting. The common causes of symmetric breast uptake fall into three groups: hyperprolactinemia (normal physiologic, drug-induced, renal failure), mammary duct hyperplasia (estrogen therapy, estrogen-containing oral contraceptives), and gynecomastia (idiopathic, orchiectomy) (1). We felt that the breast activity in our case was most likely related to the known elevated prolactin level although certainly estrogen may have contributed to the finding as well.

#### Reference

1. Chandramouly BS, Tiu S, Castronuovo JJ. Uptake of gallium in the breasts. *Semin Nucl Med* 1984; 14: 50-51.

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**REPLY:** O'Connor et al. have described another cause of pulmonary gallium uptake which may occur in intravenous drug abusers, a population which is at risk for AIDS and, therefore, frequently undergoes gallium scanning. Although the specificity in the AIDS patient of diffuse pulmonary uptake of gallium for *Pneumocystis carinii* pneumonia has been reported to range from 74% (1) to 90% (2) depending upon the interpretation criteria applied, this high specificity in part is due to the high prevalence of PCP in the AIDS population

(3). Other causes of infection, particularly CMV, and inflammation, including drug reactions and unexplained nonspecific inflammation, also occur in the AIDS population and have been associated with diffusely increased pulmonary uptake of Gallium (2,4,5). Pulmonary talc granulomatosis may be a less common cause of respiratory symptoms in the AIDS population but it is useful to be reminded of this possibility.

#### References

1. Barron TF, Birnbaum NS, Shane LB, Goldsmith SJ, Rosen MJ. *Pneumocystis carinii* pneumonia studied by gallium-67 scanning. *Radiology* 1985; 154:791-793.
2. Coleman DL, Hattner RS, Luce JM, Dodek PM, Golden JA, Murray JF. Correlation between gallium lung scans and fiberoptic bronchoscopy in patients with suspected *Pneumocystis carinii* pneumonia and the acquired immunodeficiency syndrome. *Am Rev Respir Dis* 1984; 130:1166-1169.
3. Update: acquired immunodeficiency syndrome-United States. *Morbidity Mortal Week Rep* 1986; 35:17-21.
4. Kramer EL, Sanger JJ, Garay SM, et al. Gallium-67 scans of the chest in patients with acquired immunodeficiency syndrome. *J Nucl Med* 1987; 28:1107-1114.
5. Woolfenden JM, Carrasquillo JA, Larson SM, et al. Acquired immunodeficiency syndrome: Ga-67 citrate imaging. *Radiology* 1987; 162:383-387.

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#### Gallium-67 Scans in Acquired Immunodeficiency Syndrome

**TO THE EDITOR:** In a recent review, Kramer et al. published the results of gallium-67 (<sup>67</sup>Ga) scans of the chest in 71 adult patients suspected of having acquired immunodeficiency syndrome (AIDS), and who presented with fever and/or res-