Minoxidil-Associated Pleuropericardial Effusion

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Figure 1. Posteroanterior (PA) chest X-ray with well-circumscribed opacity and enlarged cardiac silhouette.

A 53-year-old man with end-stage renal disease on hemodialysis presented with 3 weeks of exertional dyspnea. His medications included minoxidil, started 2 years prior for severe hypertension. Chest radiograph demonstrated markedly enlarged cardiac silhouette and a well-circumscribed opacity projecting over the right lung (Fig. 1). Chest computed tomography (CT) confirmed a large pseudotumor of pleural fluid and large pericardial effusion (Fig. 2). Pericardiocentesis removed 1.3 L of serosanguinous fluid, the analysis of which was nondiagnostic. Infectious, malignant, and rheumatologic causes were excluded, and the patient's adherence to dialysis made uremic pericarditis unlikely. Minoxidil toxicity was suspected. The drug was discontinued and within 1 week the patient returned to his baseline exercise tolerance with near-resolution of his pleuropericardial effusion on imaging.

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Figure 2. Computed tomography of the chest confirmed a large pseudotumor of loculated pleural fluid in the right lung.

Multiple case reports indicate that minoxidil use in dialysis patients can cause large volume pericardial effusions¹; however, only three reports of minoxidil-associated pleural or pleuropericardial effusion have been published to date.^{2–4} In these cases, there were no recurrent effusions following cessation of the drug. In any patient on dialysis and minoxidil, identification of a pleural or pericardial effusion unresponsive to ultrafiltration should prompt suspicion of this complication.

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Compliance with Ethical Standards:

Conflict of Interest: The authors declare that they do not have a conflict of interest.

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