avoided for reliable individuals. Similarly, patients incorrectly judged as unreliable could be spared the degrading experience of completely supervised treatment that requires multiple visits to the clinic each week.

If the proposed procedure of routinely monitoring each patient's drug ingestion does not work in practice, the medication monitor would still be very useful in studying the reasons for noncompliance and strategies for improving compliance.

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The development of the Medication Monitor was supported in part by grant RES-7a-16, from the National Tuberculosis Association.
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Idiopathic Dilation of the Right Atrium

Idiopathic dilation of the right atrium (IDRA) is a rare anomaly first described by Bailey in 1955. A 29-year-old woman was described with dyspnea, paroxysmal supraventricular tachycardia, and cardiomegaly. Following surgical excision of the dilated right atrial wall, the patient was free of symptoms. A review of the international literature disclosed that only 28 cases have been reported since. Six of these were children whose ages ranged from 2% to 16 years. Besides these cases, in our institution an asymptomatic two-year-old boy undergoing preadoption evaluation was found to have severe cardiomegaly on chest roentgenogram. IDRA was confirmed by cardiac catheterization and angiography. Eight years after surgical excision of the dilated atrial wall, the patient remains asymptomatic, with a normal-sized heart.

The etiology of IDRA remains unclear; however, a congenital origin seems most likely as suggested by those cases diagnosed in early childhood and the young age at which the condition was first suspected in some adult cases. From a developmental standpoint, it is not known why dilation of the right atrium occurs. The causative mechanism might be a partial loss of atrial muscular fibers with progressive atrial enlargement. Macroscopically, the atrial wall appears similar to the aplastic right ventricle described in Uhl's anomaly; however, in Uhl's anomaly the right ventricle is always involved either alone or in association with other cardiac chambers, while in IDRA only the right atrium is affected. IDRA has been compared with the dilated right atrium, "atrium papyraceous," seen in patients with rheumatic involvement of the tricuspid valve. However, the young age of several patients reported and the clinical cure of those who underwent surgical treatment supports neither a rheumatic process nor a form of primary cardiomyopathy with diffuse myocardial involvement and selective right atrial enlargement. Although histologic studies in IDRA are limited, no evidence for rheumatic disease or diffuse myocardial involvement have been found. Microscopically, findings consisted of lipomatous degeneration of the right atrium, hypertrophy of the atrial fibers, and irregular thickening and distribution of the muscle fibers, with lymphocytic infiltration of the atrial wall.

Patients with IDRA present a variable clinical picture. The anomaly was initially considered benign because some patients were asymptomatic; however, they often complained of easy fatigability, dyspnea, palpitations and syncope. Congestive cardiac failure and sudden death have been also described. These manifestations seem to be related to the development of supraventricular arrhythmias, atrioventricular conduction disturbances, and decreased cardiac output secondary to ventricular compression.
The severity of the clinical picture might correlate with the degree of atrial enlargement. Sudden death was reported by Tenckhoff et al. in a 16-year-old boy with severe cardiomegaly who refused surgical treatment. The authors stated that prophylactic surgical resection of the atrial wall should be seriously considered to prevent arrhythmias and ventricular compression that eventually might cause sudden death. In a case reported by Sheldon et al. a large, free-floating thrombus was found in the dilated right atrium at surgery. In this situation, pulmonary emboli may occur, as well as paradoxic systemic emboli if a patient foramen ovale is present.

From clinical data alone it is not possible to arrive at a diagnosis of IDRA in an individual patient. Moderate to severe cardiomegaly with prominent right cardiac border may be present roentgenographically, but these findings can be secondary to other conditions, such as Ebstein's anomaly of the tricuspid valve, atrial septal defect, endocardial cushion defect. Uhl's anomaly, pulmonary hypertension, intracardiac or extracardiac tumors, and pericardial effusion. These anomalies can be ruled out by careful cardiac catheterization and selective angiographic studies.

The importance of recognizing IDRA as a clinical entity is further emphasized by the pitfalls in diagnosis. Unnecessary exploratory thoracotomy was performed in three patients because of a presumptive diagnosis of mediastinal tumor or pericardial cysts. Later, two of these patients underwent surgical resection of the abnormal right atrial wall.

Although surgical treatment has resulted in apparent cure in several cases, the management of IDRA should be individualized. While surgical resection of the dilated atrial wall seems clearly indicated in symptomatic patients, a conservative approach with close clinical follow-up might be chosen for patients free of symptoms and with only mild to moderate cardiomegaly on chest roentgenogram.

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