tive" dosage of irradiation therapy. About 50 percent of these patients achieve good palliation of their disease for periods of a few months to over one year.

Those with no demonstrable spread of tumor beyond the confines of the esophagus are taken directly to surgery, where esophagogastrotomy is our preferred operative procedure. Patients who have localized extension of tumor beyond the esophageal lumen by CAT scan examination are carefully given 3,000 to 4,000 rads preoperative irradiation in 200 rad daily increments. If repeat CAT scan examination reveals regression of tumor, surgery is then undertaken. If the situation is still deemed inoperable, further irradiation is given and surgical efforts are abandoned. Although our numbers of patients thus far are small, we believe that we have increased the percentage of patients who can be resected by this plan. The longterm survival of these marginal patients has not been determined, but we believe the goal of maximal palliation has been achieved.

George F. Schuchmann, Col, MC
Fort Sam Houston, Texas

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Documentation of Sporadic Dysrhythmia*

Patients with symptoms suggestive of paroxysmal cardiac dysrhythmia are frequently encountered in most cardiologic practices. Acquisition of an ECG recording during symptoms is frequently crucial in the evaluation of these patients. These recordings may reveal that cardiac rhythm is normal or only slightly abnormal (frequently the case in unselected patients with palpitations). On the other hand, these recordings may reveal significant dysrhythmia, in which case management appropriate for the specific dysrhythmia can be initiated.

Acquisition of an ECG recording during symptoms may be easy or difficult depending on the pattern in which symptoms occur. When symptoms recur frequently (several times per day, for example), continuous ECG monitoring usually can be used to establish a diagnosis. However, when symptoms recur only sporadically (less than once per week), even several days of continuous monitoring is unlikely to be rewarding, and more prolonged monitoring can be prohibitively costly and inconvenient. Therefore, if symptoms are sporadic, documentation of dysrhythmia may depend on the patient's symptoms persisting until a doctor's office or emergency room can be reached (this will usually require that the symptoms last for at least half an hour).

A recently developed system enables cardiac rhythm to be directly transmitted over any telephone. A transmitter, usually about the size of a package of cigarettes, is issued to the patient. When symptoms occur, the patient goes to a telephone, dials the number of a receiving station, fixes electrodes from the transmitter on appropriate parts of the body, and places the speaker of the transmitter to the mouthpiece of the telephone. The transmitter converts cardiac rhythm to sound, while the receiving unit converts the sound into an ECG rhythm strip. We, and others, have found this system frequently useful in documenting sporadic dysrhythmias.1,4

In this issue of Chest (p 473) Pritchett and co-workers describe the use of transtelephonic transmissions in a new context, ie, in the evaluation of antiarrhythmic drug therapy in a series of patients with previously documented paroxysmal supraventricular tachycardia. The patients were asked to transmit their cardiac rhythms when they thought they were having recurrences of tachycardia. One could reasonably assume that, in these patients with documented tachycardia, recurrences of symptoms would reflect recurrences of the same tachycardia.
(suggesting drug failure). Although the report confirms that this was usually the case, there were notable exceptions. Several transmissions revealed sinus tachycardia, and thus prevented erroneous diagnoses of drug failure. In addition, one transmission revealed degeneration of paroxysmal supraventricular tachycardia to atrial fibrillation, and thus documented a second dysrhythmia which could merit treatment. These results suggest that the use of transtelephonic transmissions could improve the quality of data in some trials of antiarrhythmic drugs.

Although the transtelephonic system is frequently useful in evaluation of sporadic dysrhythmia, it does have limitations. One limitation is that it usually takes at least a minute for the patient to reach a phone, dial, and position the electrodes. (It takes much longer if the patient is driving a car when symptoms occur.) Thus, brief, but possibly serious, dysrhythmias may not be recorded. The other limitation is that use of the system usually requires that the patient not be incapacitated. A patient with syncope or severe dizziness may be unable to reach a telephone. These gaps will probably be filled by new technologic advances, ie, devices that allow patients to quickly record their cardiac rhythms on tape (and to later transmit these recordings), and monitoring devices that can actually detect and selectively record dysrhythmias.

Robert A. Bauernfeind, M.D.
Chicago

Section of Cardiology, Department of Medicine, University of Illinois College of Medicine.
Supported in part by NHLBI Institutional Training grant HL 07387 and Research grant HL 23566.
Reprint requests: Dr. Bauernfeind, PO Box 6998, Chicago 60680

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