CARDIOVASCULAR CONSULTANTS, P.A.

Keith M. Lindgren, M.D., FACC | Dennis J. Donohue, M.D., FACC | Robert DiBianco, M.D., FACC, FACP, FAHA
Louis J. Larca, M.D., FACC | David M. Brill, M.D., FACC, FSCAI | James L. Cockrell, Jr., M.D., FACC
Laurence R. Kelley, M.D., FACC | Daniel J. Fernicola, M.D., FACC | Mark A. Turco, M.D., FACC, FSCAI
Sung W. Lee, M.D., FACC | Maureen Collins Fennell, M.D., FACC

Radiofrequency Catheter Ablation

James L. Cockrell, M.D., FACC & RG Brockman, M.D.

Radiofrequency catheter ablation, developed over the past decade, has emerged as the first choice of therapy offering an effective cure for many patients with certain forms of potentially serious, abnormal rapid heart rhythms known by the medical staff as "tachycardia."

Catheter ablation is a non-surgical technique, performed in the cardiac catheterization electrophysiology laboratory, and can be used to permanently remove or "ablate" small amounts of abnormal, excess cardiac electrical tissue identified as the cause of tachycardia, and to successfully eliminate associated symptoms or the need for additional long-term treatment. Alternative treatment options include medication or surgery and should be reviewed with the medical team before ablation.

During the procedure, radiowave energy is focused at the tip of a special metal-tipped thin plastic wire known as a catheter to heat and remove minute amounts of tissue (approaching the size of the tip of a ball point pen) identified as the cause of tachycardia. The procedure can be completed on a limited hospital stay or outpatient basis. Most patients are able to resume normal activity the day after the treatment. Success rates are generally very high (over 90%) and long-term results appear to be excellent allowing most patients to return to unlimited activity. A few patients require more than one ablation session for good long-term results. Side effects are uncommon, occurring in no more than 3% of cases, and are rarely serious or requiring additional treatment. Blood-thinning drug therapy, Coumadin/Warfarin, is sometimes used. The benefits of ablation usually far outweigh the risks, but are unique to each patient and should be discussed fully with the medical team before the procedure.

Once a routine electrophysiology study is completed to identify the precise location and function of the abnormal electrical tissue responsible for tachycardia, positioning of the special ablation catheter is completed. This careful, precise catheter positioning and mapping is similar to routine electrophysiology testing, but has to be individualized and can take up to a few hours for the best results. The actual ablation takes only a few minutes, and many patients experience no significant discomfort. Some patients have only an awareness of a warm buzzing sensation, a few experience a small amount of discomfort that may require additional medicine for relief.

In the weeks and months following successful ablation, many patients experience the sensation of extra beats or occasional palpitation that usually resolves over a period of time. This is related to irritability associated with the abnormal tissue, and normally improves gradually after successful treatment. Recurrent symptoms of tachycardia are not expected and should be reported right away. Repeat testing may be recommended since recurrent symptoms suggest renewal of abnormal tissue function that would respond to a second ablation session or perhaps the emergence of a new form of arrhythmia that may need additional investigation. Most patients are free of significant symptoms following treatment and are encouraged to resume unlimited activity shortly after successful ablation.