New Surgical Treatment for Atrial Fibrillation

Atrial fibrillation (AF) is the most common heart rhythm disorder, which is characterized by rapid and irregular activation of the atria, leading to loss of normal sinus rhythm. Owing to the loss of effective atrial contraction, stasis of blood in the atria predisposes affected patients to blood clot formation in the heart. Patients with AF have a five-fold increased risk for stroke and AF is responsible for as many as 15% of all strokes.

Its conventional treatments include medical treatment and surgical treatment. Yet, the long-term medical treatment of AF is associated with a failure rate of 50% at one year and up to 84% at two years, while the conventional surgical treatment of AF (Maze procedure) involves a complicated cut-and-sew technique to interrupt the atrial pathways for multiple re-entry circuits.

A surgical team of The University of Hong Kong Li Ka Shing Faculty of Medicine and Consultant Cardiothoracic Surgeon of Grantham Hospital is the first to start using the Irrigated Radiofrequency Modified Maze Procedure as the surgical treatment of AF in patients requiring concomitant open heart operations in Hong Kong in 2002. This procedure has been performed successfully in 24 chronic patients from 2006 to 2007.

This procedure has been shown to be effective in eliminating chronic atrial fibrillation with high conversion rate (79.2%, 19 out of 24 cases). There is no major complication associated with this procedure. Further documentation of the effectiveness of the procedure will be done in future.

In conclusion, the surgical radiofrequency ablation of atrial fibrillation is the most effective method to cure chronic AF. It should be considered for patients suffering from AF undergoing heart operations, or for patients with lone AF in the future.