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Successful ablation of focal left atrial tachycardia using Stereotaxis Niobe™ remote magnetic navigation system

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Stereotaxis Niobe™ remote magnetic navigation system (MNS) (St Louis, USA), is a new technology that has applications in the field of catheter based ablation treatment of cardiac arrhythmias. Most if not all data on the feasibility, safety, and efficacy of the Stereotaxis Niobe™ MNS comes from select centres where highly skilled personnel have acquired considerable experience using this technology. Herein, we report a case where the Stereotaxis Niobe™ MNS was successfully used to perform remotely-controlled high density three-dimensional electroanatomical mapping and radiofrequency ablation of a focal atrial tachycardia originating from the anteroseptal region of the left atrium.

Summary:

- This study describes the case of a 72 year old man who had undergone previous open heart surgery and catheter ablation and was suffering from daily occurrence of left atrial tachycardia.
- The investigators integrated a previously-obtained CT scan and created a high density electroanatomic map from the control room using only the remote controlled 4mm magnetically enabled radiofrequency (RF) catheter.
- A single RF lesion (50° C, 30 W, 60 seconds) resulted in prompt termination of the arrhythmia, which could not be induced post-ablation despite a very aggressive stimulation protocol.
- The patient has been symptom free for 6 months.
- The investigators suggest that advantages of the magnetic system include achieving optimal catheter position for ablation and easily and precisely returning to sites of interest within the left atrium.