The Case of Refractory Gastric Hypomotility After Cryoballoon Ablation

Koji Sudo
Tetsuya Asakawa
Kazuya Nakagawa
Yuta Shimoura
Kazuhiro Omori
Seiko Sugita
Tetsuji Mochida
Kuniyoshi Matsumura

Introduction: Cryoballoon ablation is one of the useful methods for atrial fibrillation. Some reports show the incidence of gastrointestinal complications after cryoballoon ablation. Gastric hypomotility (GH) is relatively rare among the complications. We report the case of refractory GH post cryoballoon ablation.

Methods: N/A.

Result: A 82-year-old woman with paroxysmal atrial fibrillation (Paf) underwent a pulmonary vein (PV) isolation using a second-generation cryoballoon. She has hypertension and hyperlipidemia and has no family history of cardiac disease. It is normal left ventricular function and no structural heart disease in echocardiography. She was sedated with dexmedetomidine during the procedure. LSPV was isolated successfully by two times freeze but another 3 PVs (LIPV, RSPV and RIPV) were successfully isolated by single 160-180 seconds freeze without any significant acute complication under general anesthesia. The esophageal temperature (ET) was monitored during cryoballoon ablation and cryoballoon applications were stopped when the ET decreased to less than 20℃. In this case, the minimum ET was 34.7℃. The cavotricuspid isthmus (CTI) line was not created. Coronary angiography revealed normal coronary arteries. Two days after the procedure, she complained upper abdominal pain, abdominal distention and diarrhea. The abdominal computed tomography was performed and it showed marked gastric dilatation and the food retained inside. There was not apparent obstruction of the gastric antrum or the duodenum. The esophageal location was type A in this patient. She started medical treatment with metoclopramide, mosapride citrate hydrate and erythromycin. The symptoms slightly recovered 10 to 14 days post procedure, but upper gastrointestinal series and imaging findings still revealed asymptomatic GH after 18 days. After 21 days, she didn't recovery completely and continued the medication therapy.

Conclusion: GH is reported a rare complication after cryoballoon ablation than radiofrequency ablation. GH is one of serious complications but it is difficult that we find the GH during the cryoballoon ablation procedure.