

The influence of general anesthesia on catheter-related parameters during pulmonary vein isolation

Jia Gao¹, Bing Zhang¹, Nan Zhang², Sun Meng², Shouyuan Tian², and Rui Wang²

¹Shanxi Medical University

²First Hospital of Shanxi Medical University

March 07, 2024

Abstract

Abstract Aims: Pulmonary vein isolation (PVI) is the main treatment of atrial fibrillation (AF), which can be performed under general anesthesia or conscious analgesia. The use of general anesthesia may improve contact force (CF) and mapping system accuracy compared to conscious sedation, but its influence on catheter swing and ablation index (AI) during PVI has not previously been investigated. **Methods:** The study population included 20 patients with Af who first underwent PVI procedure: 10 patients adopted general anesthesia (GA) and 10 patients adopted conscious sedation (CS). We retrospectively analyzed the difference of catheter swing, CF, AI and distance between ablation points during PVI in two groups. **Results:** The swing of catheter was significantly higher in the CS group than in the GA group. On the contrary, CF increased in GA group. The AI and the distance between ablation points has no difference between the groups. In addition, GA was associated with lower pulmonary vein reconnection, total ablation points and supplemental ablation points. **Conclusion:** GA reduced catheter swing and improves CF during PVI compared with CS.

Hosted file

manuscripts.doc available at <https://authorea.com/users/336472/articles/709786-the-influence-of-general-anesthesia-on-catheter-related-parameters-during-pulmonary-vein-isolation>