

**Radiation exposure in cryoballoon
ablation compared to catheter ablation
with 3D-electroanatomic mapping in AF
patients**

Thesis

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in Cardiology*

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Abstract

Also, our results showed statistically significant higher patients' peak skin doses at right scapular area and cryoballoon ablation group compared to 3D mapping ablation group.

Furthermore, our findings showed that there was no statistically significant correlation between peak skin doses and fluoro-time, but there was statistically significant correlation between peak skin dose and usage of high frame rate and also with high DAP (dose area product).

These findings were compatible with most of the recent studies in the same field.

Keywords: Effective Dose - Electro-Anatomic Mapping - Fluoroscopy Guided Procedure - Intra Cardiac Echocardiography

**التعرض للإشعاع في عمليات الكي ببالون التبريد
مقارنة بعمليات الكي بقسطرة نظام الرسم التشريحي
ثلاثي الأبعاد لمرضى الذبذبة الأذينية**
□ أطروحة

توطئة للحصول على درجة الماجستير في أمراض القلب

□ مقرة من

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2017

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

لَسْبَدَانِكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

<i>Abb.</i>	<i>Full term</i>
<i>AAD.....</i>	<i>Anti-Arrhythmic Drugs</i>
<i>AF.....</i>	<i>Atrial Fibrillation</i>
<i>ALARA.....</i>	<i>As Low As Reasonably Achievable</i>
<i>CA.....</i>	<i>Catheter Ablation</i>
<i>CB.....</i>	<i>Cryoballoon</i>
<i>CBA.....</i>	<i>Cryo- Balloon Ablation</i>
<i>CF.....</i>	<i>Contact Force</i>
<i>CFAE.....</i>	<i>Complex Fractionated Atrial Electrogram</i>
<i>CS.....</i>	<i>Coronary Sinus</i>
<i>DAP.....</i>	<i>Dose Area Product</i>
<i>E.....</i>	<i>Effective Dose</i>
<i>EAMS.....</i>	<i>Electro-Anatomic Mapping</i>
<i>FGI.....</i>	<i>Fluoroscopy Guided Procedure</i>
<i>Flouro Time.....</i>	<i>Flourosocopy Time</i>
<i>FPS.....</i>	<i>Frame Per Second</i>
<i>ICE.....</i>	<i>Intra Cardiac Echocardiography</i>
<i>ICRP.....</i>	<i>International Commission of Radiation Protection</i>
<i>KAP.....</i>	<i>Kerma Air Product</i>
<i>LA.....</i>	<i>Left Atrium</i>
<i>LV.....</i>	<i>Left Ventricle</i>
<i>mGy.....</i>	<i>Mille Gray</i>
<i>MSv.....</i>	<i>Micro Sievert</i>
<i>mSv.....</i>	<i>Mille Sievert</i>
<i>NCRP.....</i>	<i>National Commission of Radiation Protection</i>
<i>PNP.....</i>	<i>Phrenic Nerve Palsy</i>
<i>PVI.....</i>	<i>Pulmonary Vein Isolation</i>
<i>PVs.....</i>	<i>Pulmonary Veins</i>