Dear Readers,

Among the many interesting articles in this issue of the Journal, I would like to bring to your attention the paper by Percell et al. entitled “Sans Fluoro (Say No Series to FLUOROscopy): A First-Year Experience”. The authors report the findings of a retrospective study examining the safety, feasibility, and short-term efficacy of treating patients with atrial fibrillation undergoing pulmonary vein isolation, with and without fluoroscopy. It demonstrated that ablation of atrial fibrillation without fluoroscopy is feasible and associated with complication rates and short-term efficacy comparable to conventional X-ray guided procedures. While this study is small and included a small number of patients, it highlighted an important and growing trend in the US, which is relying less and less on fluoroscopy for cardiac procedures.

Over the past two decades, patients’ radiation exposure has doubled. It has been reported that a third of the patients receive a cumulative estimated effective dose of more than 100mSv from all medical studies. This degree of radiation exposure has been linked to an increased risk of developing cancer. In addition to the risk to the patient, there is also risk to physicians such as interventional cardiologists and electrophysiologists. At least one study showed an increased prevalence of left sided glioblastoma multiforme in cardiologists and radiologists. All these reports have prompted physicians, hospitals, and medical device companies to invest in techniques and technologies aiming at reducing X-ray exposure to the patient and the physician.

Several techniques and tools have been developed in order to reduce radiation exposure. These include simple instruments such as radiation pads and protective cabins, to more advanced tools such as systems allowing the integration of X-ray fluoroscopy and 3D electroanatomical mapping. However most of the reduction of radiation exposure can be achieved using simple maneuvers including reducing fluoro intensity and frame rate, bringing in the collimator to focus on the field of interest, keeping distance from the x-ray tube, and minimizing pedal time by relying on 3D electroanatomical mapping systems. Most importantly, tracking operator and patient exposures, and changing the approach in case of increased exposure, is critical for a safe working environment.

As always, I hope that you find this issue of the Journal beneficial to you and your practice. Best wishes for a Happy Holidays Season.

Regards,

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