

Impact of radiofrequency ablation on heart autonomic innervation and regulation
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Our team designed the study to evaluate the impact of radiofrequency ablation of atrial ganglionated plexi on the function of the heart intrinsic neural system. We chose macro animal (sheep) model for our experiment, which would enable us to retrieve the samples of ablated heart for the anatomical and histological evaluation of the ablation site. Such model also eliminates the effects of possible cardiovascular comorbidities and effects of neurohormonal treatment on the function of autonomic nervous system if studied in humans.

We perform epicardial ablation on the left atrium of the sheep in the projections of ganglionated plexi of cardiac intrinsic nervous system through the approach of left thoracotomy. For the evaluation of changes in the function of autonomic nervous system we use heart rate variability parameters derived from 24 hour ECG monitoring. ECG samples are acquired before the ablation and monthly after it during the period of 12 months. After 1 year of follow up sheep are to be slaughtered and heart-lung complex taken for anatomical and histological examination for the effects of the ablation on ganglionated plexi.