

**Kardiologische Chirurgie
der medizinischen Universität**

Vilnius, Litauen

Dr. G. Turkevicius

February 4th, 2003

Dear colleague,

I send for you experimental investigation of cold plasma coagulation. It is good haemostatic equipment provide stopping bleeding from heart, lung and surrounding tissue in experimental and, I will hope, in clinical conditions. This model doesn't acceptable for coagulation on beating heart surface, because may cause heart fibrillation.

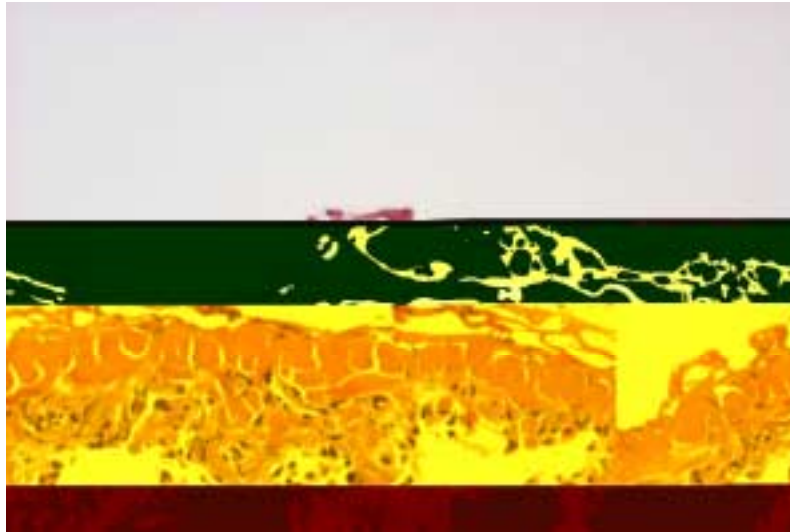
Histological tissue examination showed small degree of tissue damage. There were 8 pictures with x100 magnification and 9th picture – measure line (x100 magnification, small division – 0.01 millimeter, middle – 0.05mm and large –0.1mm.

I think that synchronization of coagulation and heart electrocardiogram will be able to avoid heart fibrillation.

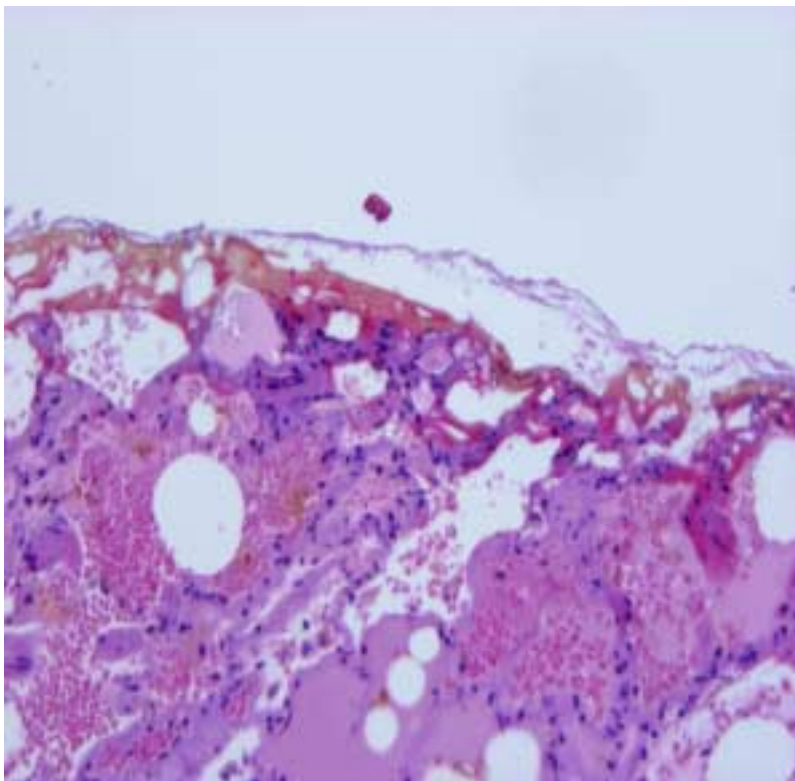
Yours sincerely

Cardio surgeon G. Turkevicius

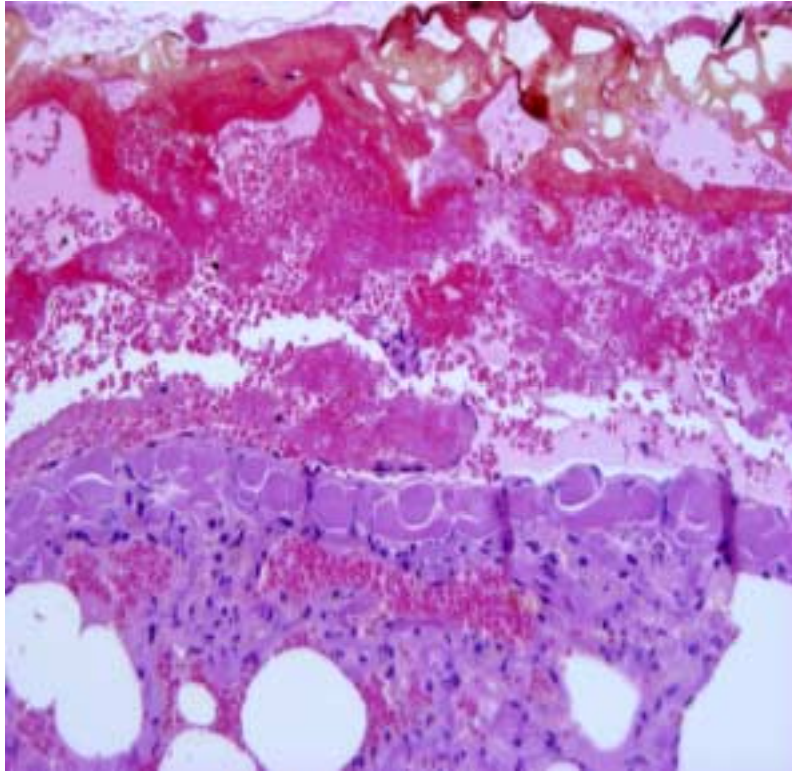
1. Lung surface coagulation with 10W power. Necrosis depth 0.05mm, no evidence of focal surrounding tissue involvement.



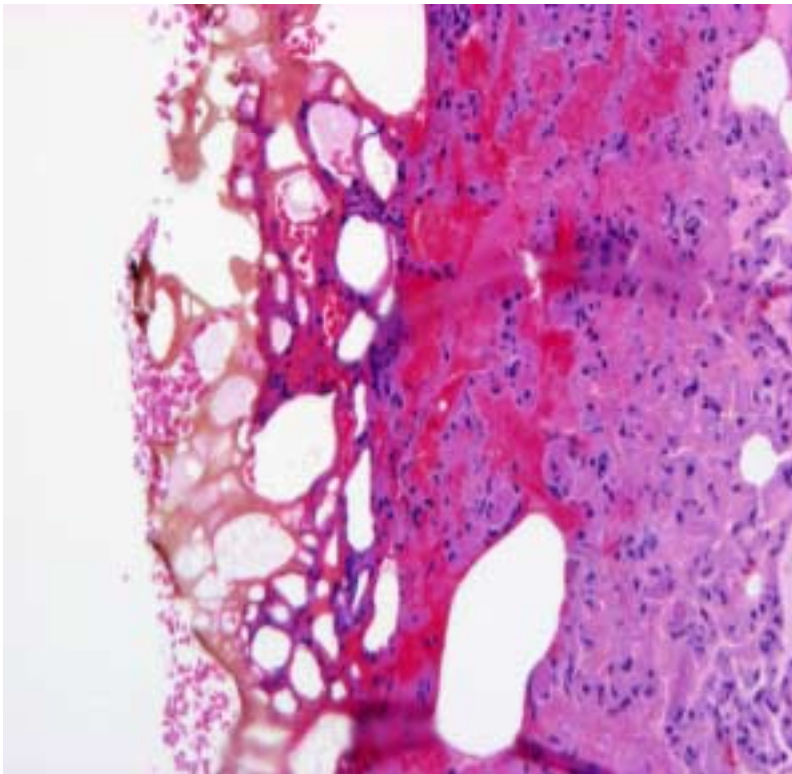
2. Coagulation of lung incision with 5W power. Necrosis depth – 0.025mm. Haemostasis was not full.



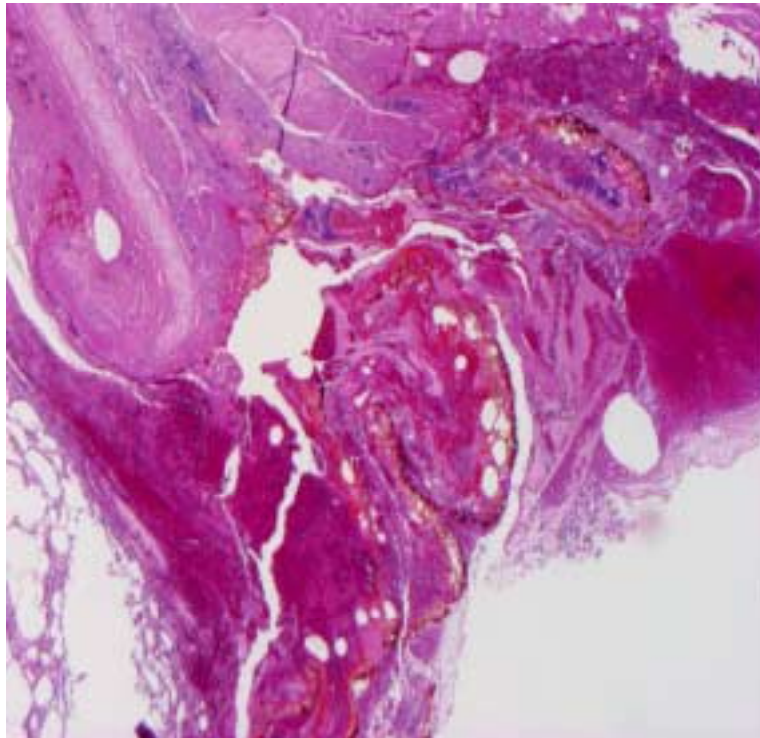
3. Coagulation of lung incision with 25W power – good haemostasis, necrosis depth 0.225mm.



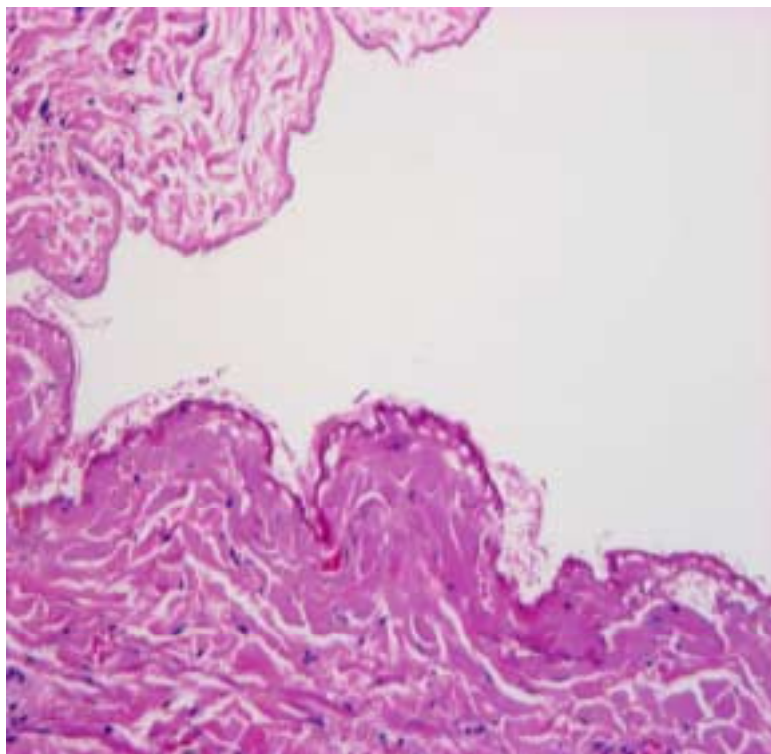
4. Small size lung tissue resection, 15W power. Necrosis depth 0.1mm., good haemostasis.



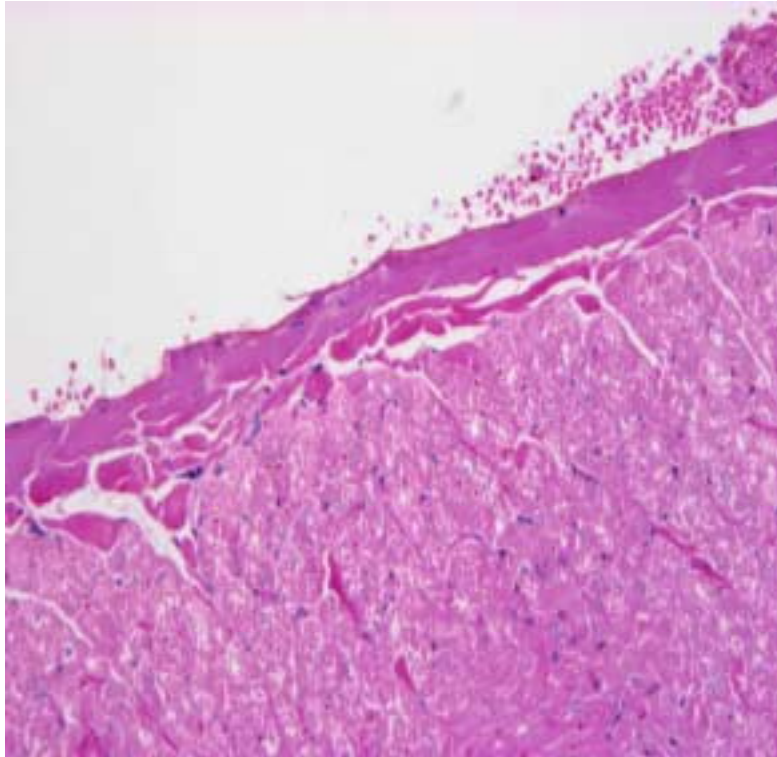
5. Lung lobe resection (x20 magnification). I used 25W power about 20 sec on working area. Good haemostasis, no evidence of air leakage. Necrosis depth about 8mm.



6. Vena cava inferior coagulation 25W. Necrosis depth 0.075mm, no evidence of local thrombosis.



7. Left ventricle coagulation 5W - causes fibrillation. Necrosis depth 0.025mm.



8. Left ventricle coagulation 25W- necrosis depth 0.1mm.

