

REPORT

on “Soring” equipment use in Thoracic Surgery Clinic of S.M. Kirov Military Medical College

1. General provisions

“Soring” equipment has been used in the thoracic surgery clinic since 2001.

The clinic has the following instruments:

- electrosurgical instruments MBC
- instruments for argon coagulation ARCO-2000 and ARCO-3000
- ultrasonic dissector Sonoca-400
- ultrasonic dissector Sonoca-Lipo
- ultrasonic apparatus Sonoca-180
- apparatus for cold plasma coagulation CPC-2000

2. Information on application of the equipment

2.1. Argon coagulation is used in clinic for the following indications:

- arrest of parenchymatous bleeding from wounds of cellular tissue, liver, spleen;
- coagulation of small bulls for patients with emphysema bullosa, complicated by spontaneous pneumothorax;
- arrest of bleeding from sternum during sternotomy in case of surgical operations on mediastinum and lungs;
- performing of arohemostasis (arrest of bleeding together with bronchopleural communication removal) for patients with damage of lung (spontaneous pneumothorax, closed chest injury, chest wounds);
- coagulation of parietal pleura for pleurodesis achievement at spontaneous pneumothorax;

2.2. Cold plasma coagulation is used for the same indications. Preference is given to cold plasma coagulation in cases when arohemostasis is to be achieved during surgical operations on lung. Priority certificate of Application for Russian Federation patent of invention has been received. At the moment the request is undergoing expert examination.

2.3. Ultrasonic dissector is used in the following cases:

- isolation of cystic duct and cystic artery, separation of infiltrates during laparoscopic cholecystectomy. This technical approach is especially valuable at surgical operations on account of acute cholecystitis. Usually, in such case isolation of cystic duct and cystic artery are complicated. Dissector allows skeletonization of gallbladder neck, of cystic duct and cystic artery and thus to decrease risk of intraoperational complications;
- sanitation of purulent cavities at pleural empyema, removal of fibrin bedding and organized exudation from walls of pleural cavity (decortication);
- ultrasonic treatment of soft tissues festering wounds;

Ultrasonic scissors are actively used in clinic since 2003 (predominantly in laparoscopic and thoracoscopic surgical operations). They are used in the following cases:

- separation of solid vascularized joints between lung and chest wall at thoracoscopic surgical operations;
- biopsy of lung tissue- atypical (marginal) resections (in combination with other ways of lung wound treatment);
- biopsy of liver;
- separation of commissures in abdominal cavity;

3. **Major scientific studies with “Soring” instrumentation usage** generally correspond with destination of the instrumentation. Most active studies are performed in the following fields:

- use of argon and cold plasma coagulation in surgery of lung disease bullosa and spontaneous pneumothorax;
- use of ultrasonic and cold plasma coagulation for arohemostasis during surgical operations on lungs;
- removal of non-malignant neoplasms of trachea and bronchi with use of argon coagulation;
- special features of bleeding from erosions and ulcers of stomach and duodenum arrest with use of argon coagulation;

4. **Publications of clinic members concerning results of “Soring” instrumentation usage.**

Results of studies performed with use of “Soring” instrumentation are published in scientific symposia releases (with reference to the instrumentation manufacturer).

Enclosures:

Publication texts

Text of application about cold plasma coagulation

Videotape recordings

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