(per cent vol. 4.01 and 2.73%, respectively). The volume fraction of the vascular bed was 6.27±0.19%. A desolation of capillaries with recalibration of blood vessels was found in the peripheral region. The lymphohysteocyte-predominant infiltration was detected (per cent vol. 23.12±1.29%).

Conclusions. Stimulation of the adhesion formation by the pleural injection of the autologous adipose tissue caused the formation of the adhesions filling the empyema cavity. Non identified inflammation indicated to the controlled development of adhesions.

CLINICAL AND ANATOMICAL CHARACTERISTIC OF THE PLEURAL CAVITY IN PLEURAL EMPYEMA

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Key words: *pleural empyema, adhesion, adhesion formation, residual cavities*

Aim. To identify the clinical and anatomic features of the pleural cavity in pleural empyema.

Material and Methods. A post mortem examination of 27 patients with diagnosed pleural empyema was performed. In compliance with the clinical and morphological classification, 170 pleural adhesions of different types were identified. Morphological evaluation by hematoxylin and eosin was performed, in addition to van Gieson's staining.

Results and Discussion. Of 27 pleural empyema patients, 11 (40.7%) showed the residual pleural cavities of various sizes and of these, purulent detritus with no inflammation and obliteration was present in 7 (25.9%) cases. The multiple pleural adhesions were found in 16 cases (9.4%). Of 170 adhesions, 83 (48.8%), 51 (30.0%), 25 (14.7%), and (6.5%) were planar, membranous, cordlike, and combined, respectively. Microscopically, the isolated adhesions showed the mature fibrous tissue which mainly included collagen and elastic fibers. The formed adhesions were richly vascularized and characterized by lymphoplasmacytic infiltration with single macrophages and leukocytes. The microscopic findings evidence the chronic inflammation in the formed adhesions.

Conclusions. 1. Chronic pleural empyema is often becomes complicated by the formation of adhesions, however, in 40.7% cases the adhesion formation was not active and as a result the residual pleural cavities were formed. 2. It is reasonable to stimulate adhesion formation to obliterate the residual cavities with the connective tissue.

MORPHOLOGICAL CHARACTERISTICS OF LOCAL COMPLICATIONS IN TATTOOING

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Key words: *tattoo, nevus, keloid, neoplasms, allergic reactions*

Aim. To describe morphology of local reactions to tattooing.

Material and Methods. In the Moscow Scientific and Practical Center of Dermatovenerology and Cosmetology of the Department of Public Health in the period from 2014 to 2018, 57 patients were observed with the complaints about poor quality of tattoo and discomfort. A needle biopsy of the skin of the tattoo area was performed. The obtained 180 samples were subjected to histological examination with the use of hematoxylin and eosin, in addition to van Gieson's staining.

Results and Discussion. In the tattoo area of all the samples, the pigment distribution was irregular and was detected as a deposition of granules of various sizes in the papillary layer of dermis. Of 180 samples, 79 samples (43.9%), showed the fraying dermal fibers and fiber destructurization and immaturity. This corresponded to the morphological characteristics of the keloid. Of 180 samples, 30 samples (16.7%), demonstrated the atrophic changes of epidermis, smoothing of epidermal ridges, hyperkeratosis and acanthosis. In addition, the areas of papillomatosis were identified. Their pathohistology corresponded to the pemphigoid type of lichen ruber planus. Of 180 samples, 21 (11.7%) showed the pathohistological features of nevus, 32 (17.8%) showed the various types of benign neoplasm (dermatofibroma, papilloma, keratoacanthoma), 3 (1.6%) showed squamous cancer, and 2 (1.1%) showed malignant melanoma. The local allergic reactions were observed single and in combination with the other complications in 63 (35%) samples.

Conclusions. The described pathohistological changes can be reliably attributed to the local complications of tatooing.