#### THEORETICAL MEDICINE

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# O.M. Halychans'ka, A.V. Andriychuk, N.S. Antoniuk ATYPICAL TOPOGRAPHY OF THE THYROID GLAND, THYMUS AND THE VESSELS OF THE SUPERIOR MEDIASTINUM IN A 6-MONTH OLD FETUS

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A study of the consistent patterns of the formation of the structure and topography of a fetus is of particular importance for interpreting of a true orientation of the processes of organogenesis, the mechanisms of the normal form-building of organs, the emergence of anatomical variants and congenital malformations. The object of the research – to ascertain the variants of the form-building and topography of the organs and vessels of the superior mediastinum in fetuses of different age groups.

The thyroid gland in a fetus, measuring 215 mm of the parietcoccygeal length has the form of a semiring without a well defined differentiation into the right and left lobes. The inferior border of the gland (of the transverse band) is located at the level of the IIId tracheal cartilage. Behind the right vertical portion of the thyroid gland the right neurovascular fascicle is to be found, the right common carotid artery occupying a medial position inside it, the right vagus nerve an intermediate position, whereas the internal jugular vein being located laterally from it (at a distance of 3 mm). The left common carotid artery adjoins tightly the left vertical portion of the thyroid gland on one side, the left internal jugular vein and the left vagus nerve being located more laterally from it. The apex of the left lobe of the thymus is located 9 mm below the left vertical portion of the thyroid gland. The thymus is represented by two isolated portions – the right and left ones, different according to the form and size. The right lobe of the thymus has a rounded form, the left one is of a pear-shaped form. The inferior borders of the thymic lobes are located 6.5 mm above the coronary sulcus of the heart. Every lobe of the thymus has a separate capsule

which is loosely connected with its parenchyma. The interlobar septa, dividing the glandular lobes into poorly marked lobules deviate from the capsules to the middle of the thymus. The length of the right lobule of the thymus equals 12 mm, the width -11 mm and the thickness -3.5mm. The anterolateral surface of this lobe is covered by the anterior margin of the superior lobe of the right lung for a distance of 4 mm. The superior vena cava and the right auricle adjoin the posterior surface of the right lobe. The right internal thoracic vein flows into the superior vena cava. At the level of the IVth thoracic vertebra the azygos vein rounds the right main bronchus at the top and in front, forming an arch and disgorges into the superior vena cava. The lenght of the left lobe of the thymus makes up 18 mm, the width in the region of the base -13 mm and the thickness is 4 mm. The anterolateral surface of the left lobe is covered by the mediastinal surface of the superior lobe of the left lung along the distance of 6 mm. The pulmonary trunk is adjacent to the postero-medial surface of the left thymic lobe, whereas its posterolateral surface is adjacent to the left auricle. The upper portion of the left lobe is narrowed in the cranial direction and is represented by the apex of the left lobe whose posterior surface adjoins the left brachiocephalic vein. The left internal thoracic vein flows into the latter. The arch of the aorta and its branches are located behind the left brachiocephalic vein: the brachiocephalic trunk, the left common carotid and the left subclavian arterios. The brachiocephalic trunk is located in front of the trachea and adjoins the VIII-VIIth tracheal rings.

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## *Krishna Taneja*PSYCHOLOGY AND ETHICS OF TERRORISM

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The term terrorist instantly illustrates an evil minded and insensitive individual who derives a sadistic satisfaction by spreading terror and destroying the lives of numerous innocent beings for no specific reason.

However it is possible that our society is making an error of judgment based on stereotypes rather than solid facts. This brings us to the research question of this presentation: "To what extent are the actions of a terrorist ethically justified?" This research not only aids in refining the definition of "terrorism" and "a terrorist" but also attempts to clear some ambiguities and paradigms held by society. Since the essay leads to a deeper understanding of a terrorists mind, it may also highlight newer, more efficient methods of countering terrorism.

The objective of our research is to synthesize and analyze what has been written in the professional and scientific literature about the psychology of terrorism. This purpose is not meant to suggest that the science of psychology gives us the only, supposedly the most reliable, analytic framework for understanding terrorism. There are advantages and limitations in applying a psychological approach to understanding or explaining human behavior, in our case terrorist's actions.

The first generation of published works dedicated to the psychological research of terrorism were based largely on theoretical formulations and clinical speculations, most of which were rooted in a psychoanalytic tradition. Terrorism was viewed as manifestation of behavioral and psychological deviance. Thus, the "psychopathology of terrorism" when studied within a psychoanalytic framework was believed to be driven by unconscious impulses and motives, which had their origins in

childhood.

To answer the research question it is required to understand primarily in detail the various ethical theories that define an ethical action. After which various events from the ancient and recent past, which have been characterized as terrorist activities, have been analyzed to understand the "terrorists" mindset. Furthermore we have analyzed events which were not categorized under terrorist activities, but are definitely questionable in

terms of ethics. However not many "terrorists" agree to be studied or give interviews, hence the world authorities lack information on terrorist psychology.

In conclusion the actions of a terrorist can not be ethically justified, however that does not mean that the perception society holds of them are correct. Hence based on the actions of a terrorist one cannot judge their entire personality. Thus this presentation does not justify the terrorist's actions, but their personality.

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### \*M.A. Nagorniy, S.A. Kashchenko, A.A. Zakharov, O.N. Kuvenyova, \*\*A.V. Eryomin THYMUS' STRUCTURE OF EXPERIMENTAL ANIMALS AFTER IMMUNOSUPPRESSION

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Background. Presently new direction - ecological morphology of the immune system - was formed. It studies the features of structure and functioning of lymphoid organs in the conditions of changing environment. The reactions of organism adaptation show up at the different regulatory systems (nervous, endocrine, immune). As a result, there are the immunodeficiency states. The structure of thymus in the conditions of immunosuppressior causes interest. Method. Research was carried out on 12 mature white rats-males. Experiment was done according to the international norms of ethics during work with experimental animals. Animals were given singly intramuscular cyclophosphanum in a dosage 200 mgs/kg for the immunodeficiency design. Rats were taken out from the experiment by decapitation method under ether anesthesia for 3 days. Thymus specimens

of 3-5 µm thickness were painted by the hematoxylineosin. Results. On 3rd day of supervision thymus saved the morphological lines of structure: it had lobules, well distinguished cortex and medulla, presence of Hassal's corpuscles in a medulla. Absolute mass of experimental rats' thymus was on 30,50% less than analogical index of the intact group of animals. Relative mass of thymus of control group rats exceeded the proper parameter of experimental group of animals on 38,45%. Width and area of the cortex also suffered changes. The width of thymus cortex of experimental animals was less than the analogical parameter of control group of rats by 23,15%, area – by 9,47%. Conclusion. Thus, findings testify the active reaction of thymus to an immunosuppressior that shows up the development of involutive processes in thymus.

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## T. I. Popadiuk, V. V. Kuftiak, V. V. Vivchariuk CONGENITAL MALFORMATION OF THE LIVER AND GALLBLADDER IN A 10-MONTH FETUS

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Anomalies of the gastrointestinal tract in children of the Chernivtsi region make up 2.53% of the number of all the congenital malformations among infants. The most common congenital malformations of the gastrointestinal tract in the children's population are congenital abnormalities of the gallbladder and the bile ducts (0.65%) [1]. Therefore the object of the research was ascertaining the specific characteristics of the structure of the liver and gallbladder in human fetuses.

While investigating a female fetus, measuring 375.0 mm of the parietococcygeal length, applying the methods of ordinary and thin specimen preparation as well as morphometry a congenital malformation of the liver and gallbladder was detected. The liver has a foliacious form with flattened right and left lobes in a vertical direction. A scaphoid impression, measuring 52.0 mm x 26.0 mm is observed on the diaphragmatic surface of the liver. The umbilical vein, 3.5 mm in diameter enters the parenchymatic region of the organ in the middle of its

anterior margin. The longitudinal size of the liver equals 138.0 mm, the anteroposterior size of the right portions of the organ -43.0 mm, whereas the left ones -21.0 mm. The left lobe of the liver has a mushroom-like form and measurements 44.0 mm x 25.0 mm. The thickness of the left lobe of the liver makes up 1.8 mm. in its turn, the thickness of the right lobe of the liver makes up from 14.5 mm in the lateral portions to 11.7 mm - in the central ones. The gallbladder of a rounded form, measuring 6.0 mm x 3.5 mm is located in the anterior part of the right sagittal sulcus. The major part of the gallbladder is submerged into the thickness of the hepatic parenchyma. The left sagittal sulcus is absent in the anterior portion, whereas its posterior portion makes its way leftwards at an angle of 900. The transverse sulcus, 18 mm in length and 10.5 mm in width, is located at a distance of 31.0 mm from the anterior border of the organ. A left portion of the portal fissure continues into the posterior part of the left sagittal sulcus. The portal fissure is restricted by