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understanding of the influence of pancreatic development on various pathologies of hepato-pancreatic sphere.

Aim. Based on literature, to analyze a correlation between variations of development of human pancreas in prenatal period of ontogenesis and development of malignancies in hepato-pancreatic sphere.

Materials and Methods. We conducted a literature analysis of 281 medical articles available in English. Out of them, 79 articles described clinical cases of patients presenting with both a variant of pancreatic embryonic development and a malignancy of hepato-pancreatic zone. Cases were analyzed for the type of variants of pancreatic embryonic development and the location of hepato-pancreatic malignancy.

Results. We found a significant difference in proportion of malignancies associated with annular pancreas and pancreas divisum when these malignancies are located in papilla duodeni major et minor. There were 24% more malignancies found around major papilla in patients with annular pancreas, in patients with pancreas divisum, there were 19% more malignancies found around minor papilla. However, the study also found that across all literature-described malignancy locations, the site of malignancy and the type of pancreatic embryonic development are independent of each other.

Conclusions: Literature suggests that variants of pancreatic embryonic development may serve as a factor in development of malignancies of hepato-pancreatic sphere. This study demonstrates that there is a significant difference in the number of malignancies at some possible malignancies sites (papilla duodeni major et minor), depending on the variant of pancreatic embryonic development.

THE TREATMENT OF CASTRATION-RESISTANT PROSTATE CANCER AT THE PRESENT STAGE

D. Nazarov

Kharkiv National Medical University, Kharkiv, Ukraine

Background. Prostate cancer (PC) is the most common neoplasm among men of North America, Europe and several regions of Africa. Every year this pathology is diagnosed in more than 500 000 people. It is one tenth of all oncological diseases among men. In Europe PC is the second malignant cause of death after lung cancer. But the prevalence is more higher than it is registered. PC is revealed in 60-70% of men, who died because of other diseases. In the case of metastatic PC hormonal therapy (HP) is traditionally used as the most effective method of palliative treatment. Despite the possibility of HT to increase survival and to decrease symptoms. Nevertheless 5 year survival of men with metastatic PC is 28%. It highly differs from 5 year survival of PC without metastases, which makes practically 100%.

Aim. To find and analyze data about treatment of Castration-resistant PC (CRPC), which is the most effective at the present stage.

Materials and methods. Analysis and summing up of European Urology Association and National Library of USA Medicine literature of last 5 years.

Results of research. The diagnosis Castration-resistant PC (CRPC) is established, when there is a growth of prostate specific antigen (PSA) in blood and/or other signs of disease progression on condition of adequate testosterone blockade with confirmed castration level of testosterone. Unfortunately, the problem of effective treatment of CRPC is not solved nowadays and length of live of such patients is about several monthes. The mechanisms of CRPC development are complicated and not studied enough. Today docetaxel, enzalutamid, abiraterone, sipulucel-T, cabazitaxel are recommended to treat hormonal resistance. Docetaxel is one of the most widely used drug for CRPC. The treatment with these drugs can increase the life only on 3-4,4 monthes, even despite of its high value. It is recommended to use targeted therapy, when the organism is resistant to enzalutamid and abiraterone therapy.

Conclusions. Today the main problems of CRPC treatment can be distinguished:

– the optimal sequence of drug use is not defined
– there is no data of its use in combination
– the decision of doctor and value of drugs influence the future therapy
– diagnosis of resistance type is very complicated
– there is no individual markers of disease

GASTRIC CANCER COMPLICATED BY BLEEDING, STENOSIS, PERFORATION: SURGICAL TREATMENT EXPERIENCE

Y. Nazarov, O. Prudnikova, A. Kurbanov

Bogomolets National Medical University, Kyiv, Ukraine

Background. Gastric cancer (including gastric carcinomas, sarcomas) is malignant neoplasia which remains a common cause of cancer death worldwide, despite the recent steady decline in both the incidence and mortality of the disease. Gastric cancer complicated by bleeding, stenosis and perforation. For today the incidence and mortality rate of gastric cancer in Ukraine (National Cancer Registry of Ukraine, 2016) is 20,6 per 100,000 and 15,8 per 100,000 accordingly. The main method of treatment is surgical, the adequacy of its volume, affects the prognosis of the disease. Unfortunately, due to late diagnosis and manifestation of complications – radical treatment becomes impossible and then resort to a palatial and symptomatic treatment.

Aim: to evaluate the surgical treatment of gastric cancer complicated by bleeding, stenosis and perforation in the early postoperative period.

Object and methods. Retrospective analysis of urgent surgical treatment of 101 patients with malignant tumor lesion of different parts of the stomach. The patients were treated in the Kiev City Clinical Hospital №12 from 2011 to 2015.

Results. 101 patients with gastric cancer (carcinoma – 78, sarcomas – 23) complicated by bleeding (84), perforation (6) or stenosis (19) underwent urgent surgical treatment, 71 (70,3%) – radical surgical treatment and 30 (29,7%) palatial and symptomatic surgical treatment. In 51 (50,5%) patients, gastric cancer was first diagnosed. Total post-operative lethality is 5,9%, which were caused in 72,7% by surgical and in 27,3% non-surgical complications.

Conclusions. Gastric cancer is still actually serious oncology problem which is need surgical treatment, however, due to the presence of complications and the progression of the disease, it is not possible for all patients to complete radical surgical treatment. Most often, gastric cancer is complicated by bleeding. Many patients (50,5%) are first diagnosed after the manifestation of these complications.

PILOT STUDY ON USE OF CANNABINOIDS IN CHILDREN DURING PALLIATIVE CARE

Vimala Anthony

Kharkiv National Medical University, Kharkiv, Ukraine

Background: Given all the differing opinions, whether they be in politics, medicine, religion, or economics, the one upon which we can all agree is that the children are our future. All that we are, and all that we accomplish in our life is nothing if not for the children as they are our successors. For our successors, cannabinoids may prove to be the new agent available that can slow or even cure them of cancer.

Aim: Main purpose of this study was to investigate the role of cannabinoids in inhibiting cell proliferation of cancer cells which then result in the cell death (apoptosis) of cancer cells.

Methods: Cannabinoids that are produced from plants are known as phytocannabinoids. The best studied is Д9-tetrahydrocannabinol (THC), which is also the component with the most psychotropic properties. The second most common plant cannabinoid is cannabidiol (CBD). Its main difference from THC is that it has no psychoactive effects. In 1975, it was shown that cannabinoids reduced tumor growth. Due to the political arena, further work was not done until the 2000's. In subsequent studies, cannabinoid receptors were found in several adult tumors, such as glioma, prostate, breast, leukemia, lymphoma, pancreas, melanoma, thyroid, colorectal, and hepatocellular. When the receptors on these tumors were activated by cannabinoids, the result was a suppression of tumor growth, inhibition of tumor invasion into blood vessels, and prevention of tumor metastasis. However, these studies were done in a laboratory – they were not performed on human test subjects.

Results: Children, by the nature of their young age, possess a developing brain. As THC exerts its greatest effects on the brain, one must be extremely vigilant in the act of prescribing such an agent to one whose brain is not yet fully formed. Though it is agreed upon in the medical arena that cannabis has benefits in treating patients with cancer, we do not yet know what, if any, long-term side effects it has on the child's brain.

Studies currently underway in children use cannabinol (CBD), as this type of cannabinoid does not act upon the brain and consequently lacks any psychoactive effects. Thus, this proposed treatment is felt to be safer for use with the pediatric population.

Conclusion: As yet, there have been no reliable studies on the use of cannabinoids in children. At best, there are only anecdotal case reports that demonstrated regression of tumor during cannabinoid treatment. These children were terminally ill and the cannabinoids were used during palliative care treatment.

It is my opinion, cannabinoids have a role in the treatment of children with cancer. The main reason is because there are cannabinoids that exist that completely lack the central effects which are the primary concern in a child's developing brain. Its use in children presently would be premature. Well-controlled studies have yet to be done. This may prove impossible as the emotional effects of the healthcare personnel when treating a child suffering with cancer may preclude him or her from enrolling the child in a study "just to see". However, this may also be the primary motivating factor to do just that – give each child any opportunity available to have a chance to live a life free of pain and as well, free of cancer.

RISK BASED STRATIFICATION TREATMENT OF PEDIATRIC ACUTE LYMPHOBLASTIC LEUKEMIA BY GENE THERAPY

Vishnupriya Krishnamoorthi

Bogomolets National Medical University, Kyiv, Ukraine

Introduction. Acute lymphoblastic leukemia (ALL) serves as the most widespread pediatric oncologic diagnosis. Survival rates among children with timely treatment has achieved 90% cure rate. The four main components of therapy includes remission induction, consolidation, maintenance and central nervous system directed therapy. Risk stratification allows treatment intensity to vary based on age, initial leukocyte count, immunophenotype, cytogenetics and its response to treatment. Immunotherapy using chimeric antigen receptor-modified T cells shows high rates in patients with B cell malignancies. Chimeric antigen receptor (CAR) T cells are generated by removing T cells from patient's blood and engineering cells to express the CAR.

Objective. To show that modified T-cells which attack leukemic cells with high yield in pediatric remission along with chemotherapy and to reveal CAR T-cells which have been called a living drug where specifically the harvested T cells genetically engineered to produce new surface proteins called Chimeric Antigen Receptors that allow to recognise and kill leukemic cells.

Materials and Methods. We recruited children with relapsed ALL as it is difficult to treat among other forms of ALL. We infused autologous T cells transduced with CD19-