

РЕЗЮМЕТА

На научните трудове на

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Катедра “Анатомия, хистология, цитология, обща и клинична патология, съдебна медицина и деонология”

Факултет медицина

Университет “Проф. д-р Асен Златаров” Бургас,

Представени съгласно правилника за условията и реда за заемане на академична длъжност в Университет “Проф. д-р Асен Златаров” Бургас и обявения конкурс за “доцент” в държавен вестник бр. 43/17.05.2024 г., в област на висшето образование 7. Здравеопазване и спорт, професионално направление 7.1. Медицина, специалност “Обща и клинична патология”

Представените резюмета на научни трудове са общо 15 на бр., групирани както следва:

А. Научни трудове включени в Академична справка по образец, доказваща изпълнение на минималните изисквания за заемане на АД “доцент”, съгласно Правилник за прилагане на ЗРАСРБ

Критерии Г

Показател Г7. Публикации и доклади, публикувани в научни издания, реферирани и индексирани в световоизвестни бази данни с научна информация (5 броя)

Показател Г8. Публикации и доклади, публикувани в нереферирани списания с научно рецензиране или публикувани в редактирани колетини томове (10 броя)

А. ДОКАЗАТЕЛСТВЕН МАТЕРИАЛ НЕОБХОДИМ ЗА ПОКРИВАНЕ НА МИНИМАЛНИТЕ ИЗИСКВАНИЯ ЗА ЗАЕМАНЕ НА АД “ДОЦЕНТ”

Г.7.1.	Gercheva L, Zhelyazkova A, Micheva I, Zgurova N , Tzaneva M, Balatzenko G. Correlation between JAK2V617F mutation burden and the degree of angiogenesis in the bone marrow of BCR-ABL negative myeloproliferative neoplasms. Journal of IMAB – Annual Proceeding (Scientific Papers). 2014; 20(4):526-30
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Abstract: JAK2V617F mutation is a well-recognized feature in most Ph-negative myeloproliferative neoplasms (MPNs). An activated bone marrow (BM) angiogenesis has been established in these disorders as well. Consequently, the rational question is to ascertain a possible relation among JAK2 mutation, morphological features and angiogenesis in MPNs bone marrow. Aim: To assess bone marrow microvessel density (MVD), bone marrow cellularity and fibrosis in newly diagnosed patients with BCR-ABL-negative MPNs, and define a correlation between the degree of angiogenesis in the bone marrow and JAK2V617F mutant allele burden. Methods: JAK2 mutational burden was determined by RT-PCR, BM angiogenesis was defined by MVD assessment using anti-CD34 for BM endothelium staining. The BM fibrosis was evaluated according to the Hanover system. The statistical analysis was performed with SPSS 17.0 software. 52 patients with newly diagnosed MPN were included in the study. Results: The distribution of the mutational burden was as follows: 26 patients with polycythaemia vera (PV), 16 patients with primary myelofibrosis (PMF) and 10 patients with essential thrombocythaemia (ET). In patients with PV the homozygosity was found prevalent in frequency whereas in PMF and ET the heterozygous variants were dominant. In all patients a significant positive correlations between JAK2V617F and BM MVD ($r=0.306$, $p<0.002$) and between MVD and fibrosis, ($r=0.523$, $p<0.0001$), was found. JAK2 correlated positively but borderline with fibrosis. The MVD and JAK2 burden were found in significant negative correlation with the BM cellularity ($r=-0.405$; $p<0.002$ and $r=-0.431$, $p<0.0001$, resp.). Conclusions: The significant correlation between JAK2V617F, BM angiogenic activity and the fibrosis marks out the JAK2 allele burden as a feasible parameter with prognostic significance for evolution and progression of MPN.

Key words: JAK2V617F mutation, angiogenesis, myeloproliferative neoplasm, polycythaemia vera (PV), essential thrombocythaemia (ET), primary myelofibrosis (PMF)

Г.7.2.	Stoyanov G, Yanulova N, Stoev L, Zgurova N , Mihaylova V, Dzhenkov D. Temporal patterns of COVID-19-associated pulmonary pathology: an autopsy study. Cureus. 2021; 13(12):e20522.
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Introduction The novel coronavirus variant - severe acute respiratory distress syndrome coronavirus 2 (SARS-CoV-2) and the disease it causes clinically (novel coronavirus disease 2019 or COVID-19) have placed medical science into a frenzy due to the significant morbidity and mortality, as well as the myriad of clinical complications developing as a direct

result of infection. The most notable and one of the most severe changes in COVID-19 develops in the lungs. Materials and methods All cases of real-time polymerase chain reaction (rtPCR)-proved COVID-19 subjected to autopsy were withdrawn from the central histopathology archive of a single tertiary medical institution - St. Marina University Hospital - Varna, Varna, Bulgaria. Pulmonary gross and histopathology changes observed on light microscopy with hematoxylin and eosin as well with other histochemical and immunohistochemical stains were compared with the time from patient-reported symptom onset to expiration, to compare the extent and type of changes based on disease duration. Results A total of 27 autopsy cases fit the established criteria. All cases clinically manifested with severe COVID-19. From the selected 27 cases, n=14 were male and n=13 were female. The mean age in the cohort was 67.44 years (range 18-91 years), with the mean age for males being 68.29 (range 38-80 years) and the mean age for females being 66.54 (range 18-91 years). Gross changes in patients who expired in the first 10 days after disease onset showed a significantly increased mean weight - 1050g, compared to a relatively lower weight in patients expiring more than 10 days after symptom onset - 940g. Histopathology changes were identified as intermittent (developing independent from symptom onset and persisting) - diffuse alveolar damage with hyaline membranes - acute respiratory distress syndrome, endothelitis with vascular degeneration and fibrin thrombi; early (developing within the first week, but persisting) - type II pneumocyte hyperplasia, alveolar cell multinucleation and scant interstitial mononuclear inflammation; intermediate (developing within the late first and second weeks) - Clara cell hyperplasia and late (developing after the second week of symptom onset) - respiratory tract and alveolar squamous cell metaplasia and fibrosis. Conclusion COVID-19-associated pulmonary pathology, both gross and histopathology, show a time-related dynamic with persistent early and a myriad of later developing dynamic changes in patients with severe disease. These changes underline both the severity of the condition, as well as the mechanisms and the probability of long-lasting severe complications in patients with post-COVID syndrome.

Keywords: autopsy; covid-19; endotheliitis; fibrosis; histopathology; lung changes; pathology; pulmonary morphology; sars-cov-2; squamous cell metaplasia.

Г.7.3.	Zlatarov Al, Drenakova P, Mihaylov S, Zgurova N , Petkova L, Ivanov K. Malignant psammomatous melanotic schwannoma mimicking adrenal cyst:
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Abstract: Melanotic schwannoma is a melanin producing nerve sheath tumors. Rarely, it can be associated with psammoma bodies, called psammomatous melanotic schwannoma. Psammomatous melanotic schwannomas are associated in up to 10% of the cases with Carney's syndrome. The rarity of the lesion, which may present at different localizations create difficulty in placing a correct initial diagnosis. Definitive diagnosis is made after complete tumor excision and pathomorphological evaluation. The prognosis depends on the anatomical localization, local invasion and presence of a high mitotic index. The main pathomorphological differential diagnosis includes schwannomas and other melanin producing tumors as melanoma.

Case presentation: We present a case of an 11-year-old female with cystic lesion adjacent to right adrenal gland, mimicking adrenal cyst. Ultrasound guided biopsy was undertaken due to the cystic appearance of the formation and the lack of certain diagnosis from the non-invasive diagnostic tests. No signs of cellular and nuclear atypism were observed. The diagnosis of benign endothelial cyst with spontaneous hemorrhage was suggested. The patient underwent transabdominal laparoscopic adrenalectomy en-bloc with the cyst to prevent spillage of the cyst content due to the intimate adhesion of the lesion to the adrenal gland and vena cava inferior. Pathomorphological examination revealed malignant psammomatous melanotic schwannoma. The adrenal gland was intact with no tumor infiltration.

The patient was followed up on the 1st and 2nd month afterwards the surgery by MRI with no signs of local recurrence and postoperative complications.

Conclusion: Psammomatous melanotic schwannoma near adrenal gland are rare and present difficulty with exact preoperative diagnosis. Complete resection should always be provided. Laparoscopic surgery is feasible if radical excision is not compromised. Long-term follow-up and Carney's syndrome surveillance after complete excision are recommended especially in young patients.

Keywords: Adrenal gland, Psammomatous melanotic schwannoma, Laparoscopy

F.7.4.	Kaisheva E, Gospodnova D, Zgurova N. Arrhythmogenic right ventricular dysplasia – a case of sudden death in children. <i>Cardiovascular disease</i> . 2022; 53(1): 63-8
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Резюме: Аритмогенната деснокамерна дисплазия (аритмогенна деснокамерна кардиомиопатия) е фамилно, генетично обусловено заболяване на миокарда, характеризиращо се с фибро-мастна инфилтрация на дясната камера (заместване на кардиомиоцитите с фиброзна и/или мастна тъкан), водещо до камерни аритмии и внезапна смърт или прогресивна деснокамерна недостатъчност. Честотата ѝ е между 1:2000 и 1:5000 с преобладаване на мъжкия пол -2-3:1. Обикновено деснокамерната дисплазия се диагностицира при деца на възраст между 15 и 40 години, особено тези с активна спортна дейност. Децата под 11 години са по-малко от 2% от случаите. Това ни мотивира да представим два случая на деснокамерна дисплазия, довели до внезапна сърдечна смърт при деца без предварителна изява на някаква клинична симптоматика на сърдечно заболяване. При аутопсията и на двете деца се констатира дилатация на дясната сърдечна камера, кръвен застои във вътрешните органи. При хистологичното изследване на миокарда се установиха: хипертрофия на кардиомиоцити, напречни контрактури в цитоплазмата, в съседство вълнообразни миокардни влакна, разрастнала субепикардна мастна тъкан и групи зрели адипоцити, разположени между кардиомиоцити и перивазално, участъци с разрастнала се съединителна тъкан. Наследственият характер на заболяването определя генетичното изследване като метод на избор при диагностицирането му. То трябва да се извършва винаги при настъпила в семейството внезапна смърт на видимо здрав малд човек. При установяване на наличните генни мутации, отговорни за развитието на аритмогенната деснокамерна дисплазия, с цел предотвратяване на леталния изход е наложително ограничаване на активна спортна дейност и започване на съответно лечение.

Ключови думи: аритмогенна деснокамерна дисплазия/кардиомиопатия, генетика, фибро-мастна инфилтрация, внезапна сърдечна смърт

Г.7.5.	Згурова Н. Базоцелуларен карцином – социална епидемиология и рискови фактори. Медицински преглед. 2023; 59(6):5-12.
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Резюме: Базоцелуларният карцином (БЦК) е най-често срещаният карцином на кожата при хората. Той се характеризира с бавно нарастваща туморна формация с изразен локален разрушителен ефект, със засягане на структурите в съседство при неадекватно лечение. Метастазите са рядкост. Най-често се развива в увредени зони, изложени на ултравиолетови лъчи, но някои научни изследвания показват развитие на

базоцелуларния карцином при пациенти с анамнеза за плоскоклетъчен карцином. Честотата на БЦК нараства с възрастта, като средната възраст на поставяне на диагнозата е 68 години. Разбирането на причините за БЦК и факторите, които са свързани с риска от развитието му, може да помогне за предотвратяване на заболяването или за откриването му в най-ранните му стадии, когато е показан за хирургична интервенция.

Ключови думи: базоцелуларен карцином, етиология, рискови фактори

Abstract: Basal cell carcinoma (BCC) is the most common skin cancer in humans. It is characterized by a slowly growing tumor formation with local destructive effect and involvement of neighboring structures in case of inadequate treatment. Metastases are rare. It most often develops in damaged areas exposed to ultraviolet rays, but a number of studies show the development of basal cell carcinoma in patients with a history of squamous cell carcinoma. The incidence of BCC also increases with age, with a median age of diagnosis of 68 years. Understanding the causes of BCC and the factors that are associated with the risk of developing it can help prevent the disease or detect it in its earliest stages when it is indicated for surgical intervention.

Key words: basal cell carcinoma, etiology, risk factors

Г.8.1.	Tzaneva M, Zgurova N , Gercheva L, Zhelyazkova A. Bone marrow microvascular density in patients with chronic mieloproliferative neoplasms with or without JAK2 mutations. Acta morphologica et anthropologica (19). 2012; 9:215-19
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Abstract: The incidence of *JAK2* (V617F) mutation in myeloproliferative neoplasms (MPNs): polycythemia vera (PV), essential thrombocythemia (ET) and chronic idiopathic myelofibrosis (MF) is very high, which leads to constitution activation of *JAK2* and an independent growth of the haemopoetic cell lines. Angiogenesis in MPNs was studied by an endothelial marker (CD34) and bone marrow microvessel density (MVD) compared in patients with and without *JAK2* (V617F) mutation. MVD in *JAK2* mutation was 16.48 ± 8.77 (per high-power microscopy field - HPF), 12.51 ± 5.59 , 20.51 ± 7.77 for PV, ET and MF, respectively. Patients without mutation had MDV 11.32 ± 5.74 , 12.80 ± 5.40 and 15.00 ± 7.57 for PV, ET and MF, respectively. There was no difference ($p > 0.05$) in mean MVD in ET, while MVD was higher in PV and MF patients with *JAK2* mutation ($p < 0.01$). These results

show pronounced angiogenesis in the bone marrow of MF and PV patients with *JAK2* mutation. Probably it is induced by the activation of the *JAK2* signaling pathway.

Key words: bone marrow microvessel density, polycythemia vera, essential thrombocythemia, chronic idiopathic myelofibrosis, *JAK2* (V617F) mutation, Neoangiogenesis

Г.8.2.	Tzaneva M, Zgurova N , Tzvetkova V. Expression of MUC1, MUC2, MUC5AC and MUC6 in Gastric Carcinoma. Tzaneva M, Zgurova N, Tzvetkova V. Expression of MUC1, MUC2, MUC5AC and MUC6 in Gastric Carcinoma. Acta morphologica et anthropologica (19). 2012; 9:220-24
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Abstract: Gastric carcinoma is two main histological types: intestinal and diffuse type. The aim of this study was to evaluate the expression and the distribution of MUC 1, MUC2, MUC5AC and MUC6 in the tumor and adjacent non-tumor epithelial tissue by immunohistochemistry in twelve cases of gastric carcinomas. MUC1 immunoreactivity in the cytoplasm of tumor cells was variable - from weak to moderate, while in non-tumor tissue it was very weak. MUC5AC and MUC6 showed a low content in tumor cells as compared to non-tumor tissue. MUC2 expression was observed in seven intestinal and one diffuse carcinoma. In adjacent mucosa MUC2 positive goblet cells had in all intestinal carcinomas. In conclusion, these results show that during the process of carcinogenesis the expression of gastric mucins MUC5AC and MUC6 is decreased and the expression of MUC2 is aberrant in areas of intestinal metaplasia. An increased MUC1 expression probably plays a role in the development of neoplastic gastric epithelium.

Key words: gastric carcinoma, mucin expression, gastric carcinogenesis

Г.8.3.	Dzhabalyan K, Tonchev T, Zgurova N , Krasnaliev I. Diagnostic value of fine needle aspiration biopsy in lymphadenopathy of the head and neck. International Bulletin of Otorhinolaryngology. 2015; 3:45-49
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Abstract: Lymph nodes in the head and neck region are involved in different pathological processes – metastatic, lymphoproliferative and inflammatory. The objective of the present study was to evaluate the diagnostic accuracy of fine needle aspiration biopsy (FNAB) and define its place in the diagnostic algorithm. The results of the cytological evaluation of

FNAB, confirmed with histological evaluation show that 72.8 % of space-occupying lesions of the lymph nodes were malignant, with 48.2% being metastatic. Non-Hodgkin lymphoma represented 69.1% of all lymphomas, whereas 28.3% were diagnosed as Hodgkin. Benign processes were represented almost exclusively by lymphadenitis – 93.9%. Sensitivity of malignancy was high (92.6%). FNAB had an accuracy of 79%. Specificity was low at 45.5%, mostly on account of lymphadenitis.

Key words: Lymph nodes, head and neck, fine needle aspiration biopsy.

Г.8.4.	Papanchev G, Georgiev T, Peev S, Arnautska H, Zgurova N , Borisova-Papancheva T, Dzhongova E. Comparison of the rates of bone regeneration in sinus lift grafting with a calcium phosphate paste between the 6 th and the 9 th month. A clinical case. Scripta Scientifica Medicinae Dentalis. 2015; 1(1):43-51
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Abstract: Maxillary sinus floor augmentation has been used for occlusal rehabilitation with prosthetic appliances installed over dental implants in the posterior maxilla despite the fact that this region often presents loss of alveolar bone and increased maxillary sinus pneumatization, particularly when all of the molars are absent. The shortage and quality of the remaining bone often implies a challenge when rehabilitating with dental implants. Different kinds of grafts have been used in an endeavour to solve these problems. The aim of this study is to find out if there is a significant difference in the bone formation between the 6th- and the 9th- month periods after sinus lift grafting with a calcium- phosphate paste (Maxresorb inj. (Botiss Dental, Berlin, Germany)). For this purpose a bilateral sinus lift has been made by own methodology. Results showed no significant difference in the percentage of newly formed bone in the sixth and the ninth month, which warrants the dental implants to be placed on the sixth month post-sinus lifting.

Key words: sinus lift grafting, a calcium- phosphate paste, histomorphometry, lateral sinus floor elevation, dental implants, graft

Г.8.5.	Джабалян К, Георгиев Т, Згурова Н , Каназирев Х, Караджова Н, Дойчинова М, Красналиев И, Тончев Ц. Диагностична стойност на тънкоиглената аспирационна биопсия на мекотъканни обемзаемащи процеси в областта на главата и шията. Варненски медицински форум. 2016; 1(5):32-37
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Резюме: Новообразуванията на слюнчените жлези представляват 3% от туморите в областта на главата и шията. Преимуществово те засягат паротидната жлеза, като няма самостоятелен метод, който да е достатъчен за поставяне на предоперативна диагноза. Съвременните най-често прилагани нехирургични способи за предоперативна диагностика са образните изследвания и тънкоиглената аспирационна биопсия (ТАБ). Настоящото проучване има за цел да установи диагностичната стойност на ТАБ и да дефинира мястото ѝ в диагностично-лечебния алгоритъм. В проучването са включени 131 пациенти с диагностичен цитологичен материал, подложени на оперативно лечение, на възраст между 19 и 94 г., 76 мъже и 55 жени. След съпоставка на резултатите от ТАБ с хистологичния отговор на резектатите от паротидна жлеза се установи, че 77.9% от обемзаемащите процеси са бенигни, като най-чест сред тях е плеоморфният аденом (44.7%), следван от кистаденолимфома (36.5%). От малигнените тумори преобладава мукоепидермоидният карцином (24.1%), следван от карцином в плеоморфен аденом (13.8%). Диагностичната класификация за оценка на ТАБ е извършена в шест категории: 0- недиагностичен; I - дефинитивно бенигнен; II - вероятно бенигнен; III - възможно малигнен; IV - вероятно малигнен; V - дефинитивно малигнен.

Abstract: Salivary gland tumours comprise 3% of all head and neck lesions; the parotid gland is most commonly affected. No single modality is suitable for preoperative diagnosis. The most common non-surgical means of obtaining preoperative information are imaging and needle aspiration cytology. The objective of the present study was to assess the diagnostic utility of fine needle aspiration biopsy (FNAB) and to define its place in the algorithm for diagnosis and treatment. Our study included 131 patients with adequate cytologic material, who underwent parotid gland surgery; the group included 76 men and 55 women, aged 19 to 94 years. Parotid masses were benign in 77.9% of the cases. Pleomorphic adenoma accounted for 44.7% of the benign tumors, followed by Warthin's tumor (36.5%). Mucoepidermoid carcinoma and carcinoma ex pleomorphic adenoma represented, respectively, 24.1% and 13.8% of the malignancies. FNAB results were classified in six diagnostic categories: nondiagnostic, definitely benign, probably benign, possibly malignant, probably malignant, definitely malignant. Sensitivity of malignancy was 86.2%; specificity 85.3%; diagnostic accuracy 85.5%. The present data suggest that fine needle aspiration biopsy is a reliable tool for preoperative diagnosis.

Keywords: fine needle aspiration biopsy, parotid gland.

Г.8.6.	Lisnichkov A, Chernopolski P, Chaushev B, Zgurova N , Bozhkov V, Plachkov I, Ivanov T, Chaushev D, Stefanov Y, Draganova V, Klisarova A, Tsaneva M, Madjov R. Piogenic liver abscess in a patient with pre-existing biliary carcinoma. Varna Medical Forum. 2017; 6(2):26-30
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Abstract: Pyogenic liver abscess is a serious and difficult to diagnose problem. One of the most common causes of liver abscesses are benign and malignant obstruction of the biliary tract. Nowadays mortality varies from 5 to 26%. In more than 90% of patients with biliary-enteric anastomosis there is retrograde intestinal bacterial contamination of bile ducts. Such infection often occurs asymptotically, but is a major risk factor for the formation of a liver abscess after BEA, especially in the presence of a tumor of the distal part of the bile ducts, which by bleeding, necrotic areas and tumor breakdown facilitates the onset and spread of the infectious process.

Keywords: pyogenic liver abscess, biliary tract carcinoma

Г.8.7.	Kehayova G, Zlateva S, Zgurova N . Biochemical and histological analysis of rats treated with verapamil overdose and resuscitated with lipid emulsion. Восточно-европейский научный журнал. 2019; 10(62):4-8
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Summary. Since 2008, lipid emulsions have been used successfully as part of standard therapy for acute lipophilic drug intoxications at a bolus dose of 1.5 ml/kg lipid emulsion 20% for one minute, followed by an infusion of 0.25 ml/kg/min for 20 -60 minutes. The high dose of lipid emulsion carries a risk of serious side effects, which is why many doctors are afraid to use it, despite reports of its positive effect as an antidote. The study demonstrated the efficacy and safety of lipid emulsion administered as an antidote at the recommended and 7-fold higher dose in acute intoxication of rats with Verapamil.

100% survival was observed in rats treated with different doses of lipid emulsion. The high dose of lipid emulsion 10 ml/kg shows greater efficiency in terms of cardioprotection. Lipid emulsion at doses of 1.5 ml/kg and 10 ml/kg are safe in terms of fat metabolism, liver and kidney parameters, proven by laboratory and histological analysis.

Key words: lipid emulsion, Verapamil, rats

Г.8.8.	Zgurova N . BRAF protein expression and morphological indicators in colorectal epithelial neoplasms. Black sea journal of medicine and public
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Abstract: Colorectal cancer (CRC) occurs as a result of accumulation of different types of genome damage. BRAF mutations appear at an early stage of CRC carcinogenesis *Purpose:* The purpose is to examine and compare BRAF expression in tumor tissue in synchronous/metachronous adenomas and CRC in connection with clinical and morphological indicators and evaluate its role as predictive marker. *Materials and methods:* Materials from 18 synchronous/metachronous colorectal adenomas and 21 CRCs were observed. We used a BRAF mouse monoclonal antibody for immunohistochemical analysis. *Results:* There are no statistically significant difference between anti-BRAF antibody expression percentage and tested indicators. There was no statistically significant difference between the protein expression and clinico-pathological indicators. Based on logistic regression analysis, a direct correlation was established between BRAF protein expression area and occurrence of lymph node metastases. *Conclusion:* Accumulation of BRAF in CRC can be used as a prognostic marker for the risk of lymph node metastases. Despite its low prevalence (5%–8%), BRAF V600 CRC has been widely studied due to the poor prognosis. Some data suggest a residual benefit from monoclonal antibodies such as cetuximab or panitumumab when given in monotherapy or with combination with chemotherapy. Due to the low prevalence of this mutation, it is necessary large-scale studies for further investigations in phase II/III trials in order to improve prognosis, treatment and survival.

Keywords: BRAF, synchronous/metachronous adenomas, CRC, lymph node , metastases

Г.8.9.	Zgurova N. APC protein expression and clinical and morphological indicators in colorectal carcinoma. Black sea journal of medicine and public health. 2024;1:15-19
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Introduction: Colorectal carcinoma (CRC) occurs as a result of accumulation of different types of genome damage. The purpose of the present research was to study and compare APC expression in tumor tissue of synchronous/metachronous adenomas and CRC in connection with clinical and morphological indicators. *Materials and methods:* Materials from 18 synchronous/metachronous colorectal adenomas and 21 CRCs were observed. We used an APC mouse monoclonal antibody for immunohistochemical analysis. *Results:* There was no

statistically significant difference between the percentage of protein expression in synchronous/metachronous adenomas and clinico-morphological indicators expect their differentiated. There was no statistically significant difference between APC expression percentage in CRC and clinico-pathological parameters. Based on logistic regression analysis, we found a statistically significant difference between protein expression area and lymph node metastases. Conclusion: APC accumulation in CRC can be used as a prognostic sign for the risk of lymph node metastases.

Keywords: APC, CRC, synchronous/metachronous adenomas, prognostic sign, metastases

Г.8.10.	Згурова Н. Хистологични особености на базоцелуларния карцином. Black sea journal of medicine and public health. 2024; 1:24-32
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Abstract: Basal cell carcinoma (BCC) is one of the most common skin cancers. It is characterized by a locally invasive character and is most often located in areas exposed to ultraviolet rays. Basal cell carcinoma usually appears as a flat area that is small with pink or red colour and may bleed after minor injuries. The size of the tumor can vary from several millimeters to several centimeters in diameter. When found early, BCC has an excellent survival rate. More than 20 different subtypes of BCC appear in the literature. Knowing the different histological variants of BCC will result in adequate treatment.

Keywords: basal cell carcinoma, classification, histological types