

Contents

Spis treści

EDITOR'S CHOICE / WYBÓR REDAKCJI

6 Advances in diagnosis of colorectal cancer and pancreatic cancer

Postępy diagnostyki raka jelita grubego i raka trzustki

Piotr Paweł Wysocki, Elżbieta Świątochowska, Paweł Kiczmer, Zofia Ostrowska

ABSTRACT

Introduction: Current advanced diagnostic methods enable us to diagnose and differentiate many diseases in their early stages, but early detection of pancreatic cancer and colorectal cancer remains a challenge for today's medicine. Currently sought techniques are those limiting the use of invasive methods and imaging tests, which often do not dispel doubts. In many scientific studies research is driven by two main mechanisms of carcinogenesis – gene mutations and chronic inflammatory disease.

Colorectal cancer: For colorectal cancer there is a promising faecal immunochemical test, taking into account the concentration of haemoglobin in the faeces. Another diagnostic aspect of this tumour may be a test for the presence of various combinations of antibodies against antigens associated with the occurrence of cancer, for example: livin, survivin, carbohydrate antigen 19-9, carcinoembryonic antigen, X chromosome-linked inhibitor of apoptosis protein, etc. In view of the mechanism of chronic inflammation of the organ as a cause of cancer, there are interesting studies carried out on arachidonic acid metabolites in the urine of patients with colon cancer.

Pancreatic cancer: In the case of pancreatic cancer research it is conducted on mutations of chromosomes 8q, 9p and *SKAP2* gene, and the hypermethylation of genes such as *SFRP1*, *MESTV2*, *APC*. Also noteworthy is the analysis of the concentrations of adipokines like omentin and adiponectin in the blood of patients with tumours or chronic inflammations of organs. Another strategy for the early diagnosis of pancreatic cancer may be a study of miRNAs as an oncogene or suppressor of tumour transformation, for example: miRNA-21 and miRNA-155, which may also allow the differentiation of benign and malignant lesions.

Conclusions: These methods provide new opportunities for the identification of cancers, but a lot of research still has to be carried out before they become the basic tools incorporated in clinical diagnostic panels.

Keywords: pancreas; colon; tumour; mutation; inflammation.

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11 Oestrogen and progesterone receptors in bilateral and unilateral pubertal gynecomastia – is treatment with anti-oestrogens justified?

Receptory estrogenowe i progesteronowe w obustronnej oraz jednostronnej ginekomastii pokwitaniowej – czy leczenie lekami antyestrogenowymi jest uzasadnione?

Kaja Giżewska-Kacprzak, Jacek Materny, Elżbieta Gawrych, Katarzyna Karpińska-Kaczmarczyk, Magdalena Lewandowska

ABSTRACT

Introduction: Pubertal gynecomastia (PG) is a benign enlargement of the breast that affects more than half of boys in puberty. In unclear aetiology there is no explanation for unilateral cases. The most common treatment in persistent cases is surgical removal, but this is associated with certain risks.

The aim of the study is to compare oestrogen receptors (ER) and progesterone receptors (PR) status in unilateral and bilateral PG, and to present possible clinical application of the results.

Materials and methods: A retrospective review of 30 patients operated on for PG was performed with immunohistochemical analysis of ER and PR in the resected tissue. Unilateral (8) and bilateral (22) cases were compared.

Results: Oestrogen and progesterone receptors were present in all of the examined specimens. There was a significantly higher percentage of ER and PR positive nuclei in tissue from bilateral PG than in material from unilateral cases. A positive correlation between the presence of ER and PR was found. Age at the time of surgery was not a significant factor.

Conclusions: Oestrogen and progesterone receptors may play a role in the aetiology of PG, especially in bilateral cases. Our results are a good starting point for studies on differences between unilateral and bilateral PG. There is a need for randomized placebo controlled trials on the use of anti-oestrogen drugs to explore pharmacological alternatives to surgical treatment of PG.

Keywords: pubertal gynecomastia; unilateral; bilateral; oestrogen receptor; progesterone receptor.

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16 Encefalopatia septyczna a majaczenie stanu ciężkiego

Sepsis-associated encephalopathy and ICU delirium

Katarzyna Kotfis

ABSTRACT

Introduction: Sepsis-associated encephalopathy is an acute dysfunction of the central nervous system (CNS) that arises as a consequence of generalized systemic infection, yet without brain infection.

The aim of this review is to introduce septic encephalopathy as a disease, with all of the epidemiology data, diagnostic opportunities, pathophysiology and possible treatment.

Sepsis-associated encephalopathy is a medical condition characterized by a broad spectrum of disturbances of consciousness, from delirium to coma, with possible seizures or focal neurological signs. Many pathophysiological mechanisms lie at the basis of septic encephalopathy, including inflammation or dysfunction of cerebral perfusion. Another important mechanism includes interactions between inflammatory cytokines and acetylcholine that lead to abnormal cholinergic transmission and neuronal death. Moreover, interaction between acetylcholine and inflammatory cytokines may induce immunosuppression.

Sepsis-associated encephalopathy diagnosis is strictly clinical, based on neurological examination and the exclusion of other causes, because there are no definite biochemical tests or radiological studies specific for this disease. The use of ICU delirium screening tools, such as CAM-ICU (Confusion Assessment Method for the Intensive Care Unit) enables earlier detection of brain dysfunction. Neuroimaging studies (computed tomography, magnetic resonance imaging), as well as electroencephalography may be helpful in the assessment of the severity of dysfunction.

The most important element is early diagnosis of sepsis, especially with the use of the QuickSOFA scale, and early initiation of multidirectional treatment according to Surviving Sepsis Campaign guidelines: early source identification and source control, initiation of optimal antibiotic therapy, adequate fluid therapy and supportive treatment for major organs. In order to prevent CNS dysfunction in the ICU, deep sedation and benzodiazepines should be avoided and dexmedetomidine and propofol introduced instead. Pharmacological treatment of ICU delirium is based on the use of typical (haloperidol) and atypical (i.e. quetiapine) antipsychotics. Non-pharmacological methods include early mobilization, ensuring day and night cycles, the minimalization of nocturnal factors (light, sounds, interventions), and family engagement.

Conclusion: Sepsis-associated encephalopathy is a serious illness associated with severe consequences, including increased mortality, long-term cognitive dysfunction, and immunosuppression. The co-dependence between septic encephalopathy and the immune system should be underlined in the approach towards sepsis treatment.

Keywords: sepsis associated encephalopathy; sepsis; ICU delirium; CAM-ICU; cognitive dysfunction.

- 22 Carrier state of GBS in the aspect of perinatal antibiotic therapy in 2007–2011**
Nosicielstwo GBS w aspekcie antybiotykoterapii okołoporodowej w latach 2007–2011
Sławomir Szymański, Katarzyna Szczerba, Violetta Konstany-Kurkiewicz, Witold Malinowski, Olimpia Sipak-Szmigiel
- 27 Cytochrome P450 oxidoreductase genetic polymorphism and pantoprazole pharmacokinetics in healthy volunteers**
Polimorfizm genu oksydoreduktazy cytochromu P450 a farmakokinetyka pantoprazolu u zdrowych ochotników
Mateusz Kurzawski, Barbara Gawrońska-Szklarz, Urszula Adamiak-Giera, Elżbieta Wyska, Marek Drożdżik, Sylwia Szelań-Pieniek
- 31 Wpływ wybranych cytokin na uszkodzenie narządów w toczniu rumieniowatym układowym**
Influence of selected cytokines on organ damage in systemic lupus erythematosus
Łukasz Kapłon, Marek Brzosko
- 37 In vivo assessment of clinical, radiographic and laser fluorescence examinations for the detection of secondary caries in Class I restorations**
Kliniczna ocena skuteczności badania klinicznego, radiologicznego i fluorescencji laserowej w wykrywaniu próchnicy wtórnej w ubytkach I klasy według Blacka
Agnieszka Witek, Jadwiga Buczkowska-Radlińska, Maja Bendyk-Szeffer, Alicja Nowicka, Katarzyna Barczak
- 42 Wpływ pestycydów na zdrowie człowieka**
Effect of pesticides on human health
Marta Grotowska, Katarzyna Janda, Karolina Jakubczyk
- 51 Lecznicze zastosowania limonenu**
Therapeutic applications of limonene
Monika Retajczyk, Agnieszka Wróblewska
- 58 Assessment of ankle-brachial pressure index in elderly patients as screening for lower extremity ischemia in the context of medical test method used**
Ocena wskaźnika kostka–ramię u seniorów jako badanie przesiewowe w diagnostyce niedokrwienia kończyn dolnych w kontekście zastosowanych metod badania i w odniesieniu do młodszych pacjentów
Mariola Głowacka, Sara Rossa, Maria T. Szewczyk, Beata Haor, Paulina Zabielska, Anna Jurczak, Beata Karakiewicz, Katarzyna Karakiewicz-Krawczyk, Marzena Mikla, Kornelia Kędziora-Kornatowska
- 64 Kryteria kliniczne kwalifikacji dziecka z lekkim urazem głowy do badania tomografii komputerowej ocenione w materiale własnym**
Clinical criteria for head computed tomography in children with mild head injury
Karolina Rosołowicz, Paula Wolan, Aleksandra Puciło, Jacek Materny, Elżbieta Gawrych
- 69 Dolegliwości bólowe odcinka lędźwiowo-krzyżowego kręgosłupa u pracowników szczecińskich uczelni – anatomia funkcjonalna, diagnostyka, wybrane formy fizjoterapii**
Lumbosacral ailments of the spine in workers of Szczecin Universities – functional anatomy, diagnostics, and selected forms of physiotherapy
Wioletta Jagucka-Mętel, Anna Machoy-Mokrzyńska, Adam Nowicki, Ewa Sobolewska
- 74 Wpływ czynników środowiskowych na pojadanie u dzieci w wieku przedszkolnym**
The influence of environmental factors on snacking in preschool children
Joanna Myszowska-Ryciak
- 79 Orofacial pain in a female patient with MELAS syndrome. A case report**
Postępowanie u pacjentki z zespołem MELAS. Opis przypadku
Bartosz Dalewski, Halina Ey-Chmielewska, Małgorzata Kudlik, Bogumiła Frączak
- 83 Postępowanie u pacjentki z bólem neuropatycznym po ekstrakcji trzeciego zęba trzonowego żuchwy. Opis przypadku**
Neuropathic pain after a third molar extraction. A case report
Bartosz Dalewski, Agata Kamińska, Grzegorz Trybek, Bogumiła Frączak

87 Ciężkie zapalenie płuc o etiologii *Pneumocystis jirovecii* u pacjentki po przeszczepieniu nerki uczulonej na Biseptol

Severe *Pneumocystis jirovecii* pneumonia in a patient allergic to Biseptol after kidney transplantation

Joanna Kabat-Koperska, Małgorzata Marchelek, Grażyna Dutkiewicz, Grzegorz Marcinkowski, Kazimierz Ciechanowski

90 Leczenie operacyjne rozległego ubytku tkanek miękkich dołu pachowego – opis przypadku

Operative treatment of excessive soft tissue defect in the axilla – a case report

Andrzej Żyluk, Ireneusz Walaszek

EDITOR'S CHOICE / WYBÓR REDAKCJI

93 Style żywieniowe Polaków i ich społeczno-demograficzne uwarunkowania
Nutritional styles of Poles and their socio-demographic determinants

Agnieszka A. Borowiec, Anita E. Aranowska

ABSTRACT

Introduction: Nutrition belongs to the modifiable risk factors for diseases and is a topic of health education. Its change may be difficult because food is not only a physiological need but is also a part of lifestyle. Lifestyle is defined as a coherent whole, including the behaviour chosen by people to the extent that allows them their place in the social structure. Different dietary practices can create clusters that are components of different lifestyles.

The aim of the analysis was to identify the nutritional styles of Poles and their socio-demographic determinants.

Materials and methods: Data were acquired from a survey conducted on a nationwide representative sample (n = 1000) completed in 2016. Principal component analysis and multiple linear regression analysis were performed.

Results: Three nutritional styles were identified: “careless”, “healthy” and “traditional”. The “careless” style is typical for men, younger people and those living in larger households. It is rarely typical of professionals and managers, or pupils and students, retirees and pensioners, and residents of the smallest cities. The “healthy” style is mostly characteristic of women, those with tertiary and secondary education, students and entrepreneurs. The “traditional” style is more frequent among younger people living in smaller households, with secondary and vocational education, as well as residents of cities with a population from 50 to 200 thousand.

Conclusions: The analysis indicated the existence of nutritional styles associated with position in the social structure, and this should be considered in health education related to nutrition.

Keywords: nutrition; lifestyle; health education.

99 Ocena wiedzy studentów farmacji w zakresie profilaktyki chorób układu krążenia. Część 1. Wiedza w zakresie prewencji pierwotnej
Knowledge of pharmacy students regarding the prevention of cardiovascular diseases. Part 1. Knowledge in the field of primary prevention

Beata Sarecka-Hujar, Aneta Ostróżka-Cieślak, Andrzej Jankowski

105 Ocena wiedzy studentów farmacji w zakresie profilaktyki chorób układu krążenia. Część 2. Wiedza w zakresie prewencji wtórnej
Assessment of the knowledge of the prevention of cardiovascular diseases among pharmacy students. Part 2. Knowledge in the field of secondary prevention

Aneta Ostróżka-Cieślak, Beata Sarecka-Hujar, Andrzej Jankowski

109 Opieka zdrowotna w Polsce w latach 1989–2000
Health care in Poland in 1989–2000

Jacek Kotuła, Andrzej Kierzek

114 In the upcoming issue...