

ABSTRACT&REFERENCES

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URBACH-WEITHE DISEASE (LIPOID PROTINOSIS): A CASE REPORT

p. 4–7

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Lipoid proteinosis is a rare disorder, inherited as autosomal recessive disorder. Patients affected with lipoid proteinosis can show multiple clinical manifestations as a result of progressive hyaline material deposition in skin, mucous membrane and different organs of body. We are reporting a case of 41 year old Saudi male who presented to Dermatology clinic with progressive skin and oral mucosal lesions. Patient presents with different clinical manifestations most importantly hoarseness of voice, restricted tongue movement and attacks of seizure. Biopsy from oral mucosa was taken and revealed hyaline like deposition in the subepithelial tissue, according to the biopsy result and clinical presentations the patient was diagnosed as a case of lipoid proteinosis. Our main objective is to report a large uncharacterized disease in Arab population such as lipoid proteinosis in middle adulthood male

Keywords: Lipoid Proteinosis, Deposition disorder, Autosomal recessive

References

1. Thaddane, R., Khilnani, A., Pandya, P., Chaturvedi, M. (2014). Lipoid proteinosis (Urbach-Wiethe disease) in two siblings. Indian Dermatology Online Journal, 5 (6), 95–97. doi: 10.4103/2229-5178.146168
2. Mittal, H. C., Yadav, S., Malik, S., Singh, G. (2016). Lipoid Proteinosis. International Journal of Clinical Pediatric Dentistry, 9, 149–151. doi: 10.5005/jp-journals-10005-1353
3. Rao, R., Betkerur, S., Babu, C., Sudha, V. (2009). Lipoid proteinosis. Journal of Oral and Maxillofacial Pathology, 13 (2), 81–84. doi: 10.4103/0973-029x.57675
4. Chan, I., Liu, L., Hamada, T., Sethuraman, G., McGrath, J. A. (2007). The molecular basis of lipoid proteinosis: mutations in extracellular matrix protein 1. Experimental Dermatology, 16 (11), 881–890. doi: 10.1111/j.1600-0625.2007.00608.x
5. Bakry, O. A., Samaka, R. M., Houla, N. S., Basha, M. A. (2014). Two Egyptian cases of lipoid proteinosis successfully treated with acitretin. Journal of Dermatological Case Reports, 8 (1), 29–34. doi: 10.3315/jdcr.2014.1168
6. Sangwan, A., Kaur, S., Jain, V., Dayal, S. (2016). Urbach-Weithe disease (lipoid proteinosis): A classical presentation. Indian Dermatology Online Journal, 7 (2), 143–144. doi: 10.4103/2229-5178.178089
7. Giandomenico, S. Di., Masi, R., Cassandrini, D., El-Hachem, M., De Vito, R., Bruno, C., Santorelli, F. M. (2006). Lipoid Proteinosis: Case report and review of the literature. Acta Otorhinolaryngologica Italica, 26 (3), 162–167.
8. Devi, P., Bipasha, M. (2015). Lipoid proteinosis: A rare entity. Indian Journal of Ophthalmology, 63 (8), 680–681. doi: 10.4103/0301-4738.169791
9. Toosi, S., Ehsani, A. (2009). Treatment of lipoid proteinosis with acitretin: a case report. Journal of the European Academy of Dermatology and Venereology, 23 (4), 482–483. doi: 10.1111/j.1468-3083.2008.02928.x
10. Gunduz, O., Sahiner, N., Atasoy, P., Senyucel, C. (2012). Acitretin Treatment for Lipoid Proteinosis. Case Reports in Dermatological Medicine, 2012, 1–4. doi: 10.1155/2012/324506

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THE ANALYSIS OF MODERN METHODS OF DIAGNOSIS IN PATIENTS WITH UNSTABLE INJURIES OF PELVIS AND PELVIC ORGANS AT POLYTRAUMA IN ACUTE TRAUMATIC DISEASE

p. 7–14

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The aim of research was improvement of the diagnostic program in patients with unstable injuries of pelvis and pelvic organs at polytrauma based on the trauma severity estimation for the choice of the optimal surgical therapeutic approach in acute traumatic disease period.

Materials and methods. The analysis of the diagnostic programs in acute traumatic disease period in 406 patients with unstable injuries of pelvis at polytrauma, who were taken to the Kyiv city clin-

cal emergency hospital, was carried out. 249 (61.3 %) of them died, and 157 (38.7 %) of them survived. Pelvic organs were injured in 98 (24.1 %) cases (in 47 (29.9 %) cases – in survivors, and in 51 (20.5 %) cases – in dead patients). According to the Pape HC., Krettek C. (2003) scale, all patients were divided into three groups: boundary condition (minor injury, ISS 17–25 points), unstable condition (severe injury, ISS 26–40 points), critical condition (very severe trauma, ISS more, than 40 points). We used general clinical, laboratory, ray (X-ray research, retrograde contrast uretra cystography, spiral CT, ultrasonography in the abridged version), and instrumental methods.

Results. In the acute trauma period in patients with unstable injuries of pelvis at polytrauma depending on the severity of trauma, ray diagnostic methods were carried out in the following order: plain radiography of pelvis, multi projection oblique, spiral CT (at stable hemodynamic). In unstable and critical patients (ISS 26–40, more, than 40 points), plain radiography of pelvis is complemented by ultrasonography in the abridged version, which together with the data of clinical examination confirms pelvic ring instability in 67.9 % of cases. The scheme of diagnostic studies in patients with unstable injuries of pelvis at polytrauma considering the severity of trauma allowed reducing the time for patients in unstable condition examination to 13.7 ± 3.5 minutes, for patients in critical condition – to 16.7 ± 4.1 minutes. Informational content of the measures with a minimum amount was 52.3 %, with shorten amount – 75.4 %, with full amount – 92.1 %.

The obtained results made it possible to develop the scheme of ray diagnostic of pelvic ring, as well as to reduce the time for detection of injuries of pelvic organs in patients in unstable and critical conditions, which determined the surgical therapeutic approach in acute traumatic disease period

Keywords: unstable pelvis, polytrauma, pelvic organs, diagnostic methods, acute traumatic disease period

References

- Ankin, L. N., Ankin, N. L. (2008). Povrezhdeniya taza i perelomy vertluzhnogo vpadiny. Kyiv: Kniga plus, 216.
- Ankin, L. N., Baramiya, N. N., Kukuruz, Ya. S. (2006). Standartizaciya xirurgicheskogo lecheniya povrezhdenij tazovoj oblasti u postradavshix s politravmoy. Problemi vijskovoii oxoroni zdorov'ya, 392–398.
- Borozda, I. V., Voronin, N. S., Bushmanov, A. V. (2009). Lechenie sochetannyx povrezhdenij taza. Vladivostok: Dalnauka DVO RAN, 200.
- Culemann, U., Scola, A., Tosounidis, G., Pohleemann, T., Gebhard, F. (2010). Versorgungskonzept der Beckenringverletzung des alten Patienten. Der Unfallchirurg, 113 (4), 258–271. doi: 10.1007/s00113-010-1762-3
- Hauschild, O., Strohm, P. C., Culemann, U., Pohleemann, T., Suedkamp, N. P., Koestler, W., Schmal, H. (2008). Mortality in Patients With Pelvic Fractures: Results From the German Pelvic Injury Register. The Journal of Trauma: Injury, Infection, and Critical Care, 64 (2), 449–455. doi: 10.1097/ta.0b013e31815982b1
- Letournel, E., Judet, R.; Elson, R. A. (Ed.) (1993). Fractures of the Acetabulum. Berlin: Springer Verlag, 733. doi: 10.1007/978-3-642-75435-7
- Tile, M., Helfet, D. L., Kellam, J. F. (2003). Fractures of the pelvis and acetabulum. Philadelphia: Lippincott Williams & Wilkins, 822.
- Borozda, I. V. (2009). Kompleksnaya diagnostika sochetannyx povrezhdenij taza, proektirovanie i upravlenie konstrukciyami vneshnej fiksacii. Yakutsk, 37.
- Heetveld, M. J., Harris, I., Schlaphoff, G., Sugrue, M. (2004). Guidelines for the management of haemodynamically un-
- stable pelvic fracture patients. ANZ Journal of Surgery, 74 (7), 520–529. doi: 10.1111/j.1445-2197.2004.03074.x
- Rzaev, R. S. (2010). Lechenie povrezhdenij taza s narusheniem celostnosti ego kolca u postradavshix s shokogennoj travmoj. Saint Petersburg, 29.
- Yerasimides, J., Roberts, C. S. (2005). Pelvic fractures and genitourinary injuries. Current Orthopaedics, 19 (5), 354–361. doi: 10.1016/j.cuor.2005.09.004
- Rindenko, S. V. (2007). Diagnostika ta likuvannya pere-lomiv kistok taza v postrazhdalix iz politravmoyu. Medicina neolozhnyx sostoyaniy, 5 (12), 20–25.
- Sokolov, V. A., Byalik, E. I., Smolyar, A. N., Garaev, D. A., Evstygneev, D. V., Fajn, A. M. (2011). Taktika lecheniya nestabilnyx povrezhdenij tazovogo kolca u postradavshix s politravmoy na reanimacionnom etape. Skoraya medicinskaya pomoshh, 1, 62–66.
- Glumcher, F. S., Fomin, P. D., Pedachenko, E. K. (Eds.) (2012). Politravmy: xirurgiya, travmatologiya, anesteziologiya, intensivnaya terapiya. Kyiv: VSI «Medicina», 736.
- Sokolov, V. A. (2006). Mnozhestvennye i sochetannye travmy. Moscow: GEOTAR Media, 512.
- Culemann, U., Burkhardt, M., Knopp, W. (2012). Emergency Treatment of Pelvic Fractures. German medical journal, 14, 15–31.
- Dyatlov, M. M. (2003). Neotlozhnaya i srochnaya pomoshh pri tyazhelyx travmax taza. Gomel: IMMS NAN Belarusi, 296.
- Klimovickij, V. G., Lobanov, G. V., Xudobin, V. Yu. (2011). Diagnostika i lechenie slozhnoj travmy taza: stereotypy, problemy i perspektivy. Zdorov'ya Ukraini, 3 (6), 49–51.
- Runkov, A. V., Shlykov, I. L. (2009). Poliproekcionnaya rentgenografiya pri povrezhdeniyax taza. Ekaterinburg: Medicinskaia texnologiya, 39.
- Treshnev, V. S. (1967). Lokalizaciya i rasprostranenie gematom pri razryvakh krestcovo-podvzdoshnyx sochlenenij i pereklyom krestca. Klinicheskaya xirurgiya, 10, 61–65.
- Pape, H.-C., Krettek, C. (2003). Frakturversorgung des Schwerverletzten – Einfluss des Prinzips der “verletzungsadaptierten Behandlungsstrategie” (“damage control orthopaedic surgery”). Der Unfallchirurg, 106 (2), 87–96. doi: 10.1007/s00113-003-0580-2
- Kazhanov, I. V., Manukovskij, V. A., Tyurin, M. V. (2012). Mnogoetapnaya xirurgicheskaya taktika pri lechenii postradavshix s povrezhdeniem krestca. Mediko-byologicheskiye y sozial'no-psychologicheskiye problemy bezopasnosti v chrezvichajnih situacyah, 2, 38–47.

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ANALYSIS OF THE REASONS FOR THE LACK OF ADHERENCE TO TREATMENT AND METHODS OF THEIR CORRECTION IN PATIENTS WITH RESISTANT AND PSEUDO-RESISTANT ARTERIAL HYPERTENSION IN FAMILY DOCTOR PRACTICE

p. 15–18

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Aim. The analysis of the main reasons for the lack of adherence to treatment in patients with resistant and pseudoresistant arterial hypertension and the possibilities of their elimination by different poor adherence correction methods against the background of antihypertensive therapy optimization in family doctor practice.

Methods. Questionnaires and surveys, physical examination, office blood pressure measurement, ECG. Retrospective examination of 120 patients with resistant essential hypertension lasting more than 3 years was carried out. First and foremost, in all patients, a new method for differential diagnostics of resistant and pseudoresistant arterial hypertension by office blood pressure measurement and ECG 3 hours before and after previously assigned three antihypertensive drugs administration was used. According to the differential diagnostics results, the patients were divided into 4 groups: 30 patients with pseudoresistant arterial hypertension and 30 patients with resistant hypertension, having common methods for poor adherence to treatment correction, and 30 patients with pseudoresistant arterial hypertension and 30 patients with resistant hypertension, having additional methods for poor adherence to treatment correction.

Results. In most both pseudoresistant and resistant hypertension patients, adherence to treatment violations were found.

Conclusion. On the basis of comparative study of different methods for the lack of adherence to treatment correction in patients with resistant and pseudoresistant hypertension, the efficiency of the additional correction methods was scientifically proved, namely: implementation into the patients' practice of blood pressure home monitoring with keeping a self-control diary and telephone consultation (visits) method, in elimination of subjective reasons, mostly related to irregular intake of remedies in most patients

Keywords: resistant hypertension, pseudoresistant hypertension, reasons for poor adherence to treatment

References

- Arterial'na hipertensiya. Onovlena ta adaptovana klinichna nastanova, zasnovana na dokazakh (2012). MOZ Ukrayiny, No. 384, 64. Available at: <http://www.apteka.ua/article/151151>
- Mancia, G., Fagard, R., Narkiewicz, K., Redon, J., Zanchetti, A., Bohm, M. et al. (2013). 2013 ESH/ESC Guidelines for the management of arterial hypertension. Journal of Hypertension, 31 (7), 1281–1357. doi: 10.1097/01.hjh.0000431740.32696.cc
- Korzh, A. N. (2015). Dyahnostyka y lechenye rezystentnoy arteryal'noy hypertenziyy. Mezhdunarodnyiy meditsinskiy zhurnal, 2, 15–23.
- Kobalova, Zh. D., Shavarova, E. K. (2013). Rezistentnaya arterialnaya gipertoniya: novoe i neizmennoe znachimoe. Serdtse: zhurnal dlya praktikuyuschiy vrachey, 12 (2), 123–132.
- Yaxley, J., Thambar, S. (2015). Resistant hypertension: An approach to management in primary care. Journal of Family Medicine and Primary Care, 4 (2), 193–199. doi: 10.4103/2249-4863.154630
- Obertyns'ka, O. H. (2015). Rezistentnaya arterial'na hipertensiya: poshuk optymal'noyi kombinovanoyi terapiyi. Ukrains'kyy kardiologichnyy zhurnal, 6, 113–123.
- Wuerzner, K., Hassler, C., Burnier, M. (2003). Difficult blood pressure control: watch out for non-compliance! Nephrology Dialysis Transplantation, 18 (10), 1969–1973. doi: 10.1093/ndt/gfg281
- Gosmanova, E. O., Kovesdy, C. P. (2014). Adherence to anti-hypertensive medications: is prescribing the right pill enough? Nephrology Dialysis Transplantation, 30 (10), 1649–1656. doi: 10.1093/ndt/gfu330
- Kachan, I. S. (2012). Otsinka prykhylnosti do likuvannya khvorykh na hipertonichnu khvorobu. Zaporozhskyy medytsynskyy zhurnal, 1, 70–72.

10. Osterberg, L., Blaschke, T. (2005). Adherence to Medication. New England Journal of Medicine, 353 (5), 487–497. doi: 10.1056/nejmra050100

11. Burnier, M. (2014). Managing “resistance”. Current Opinion in Nephrology and Hypertension, 23 (5), 439–443. doi: 10.1097/mnh.0000000000000045

12. Sirenko, Yu. M., Rekovets, V. M., Hur'yeva, O. S. (2010). Dodatkovyi metody otsinky efektyvnosti ta adekvatnosti antyhipertenzyvnoyi terapiyi. Arterialnaya gipertensiya, 2 (10), 40–45.

13. Voloshyna, O. B., Udovytsya, V. O., Lysyy, I. S., Dukova, O. R., Chayka, A. O., Dychko, T. O. (2016). Pat. No. 110884 UA. Sposib dyferentsiynoyi diahnostyky psevdorezystentnoyi arterial'noyi hipertensiyyi vid rezystentnoyi arterial'noyi hipertensiyyi. MPK A61B 5/0452 MPK, A61B 5/021. No. a201410369; declarated: 22.09.2014; published: 25.02.2016, Bul. No. 4.

14. Morisky, D. E., Ang, A., Krousel-Wood, M., Ward, H. J. (2008). Predictive Validity of a Medication Adherence Measure in an Outpatient Setting. The Journal of Clinical Hypertension, 10 (5), 348–354. doi: 10.1111/j.1751-7176.2008.07572.x

15. Morisky, D. E., Green, L. W., Levine, D. M. (1986). Concurrent and Predictive Validity of a Self-reported Measure of Medication Adherence. Medical Care, 24 (1), 67–74. doi: 10.1097/00005650-198601000-00007

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PREDICTION OF DEVELOPMENT OF EARLY POSTOPERATIVE COMPLICATIONS OF THE CONTACT ULTRASOUND LITHOTRIPTSY

p. 19–24

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Nowadays, endoscopic treatment of kidney and upper ureter stones is the method of choice in a large group of patients. The success of ureteroscopic treatment of stones is a result of the development of efficient flexible ureteroscopes, new capture devices and laser lithotripters.

Aim. The analysis of the reasons and the character of early postoperative complications after ureteroscopy and contact lithotripsy using semi-rigid ureteroscope and ultrasonic lithotripter.

Methods. Ureteroscopy with contact lithotripsy and (or) lithoextraction against concrements of various ureter departments was made in 1268 patients. The patients were monitored after discharge in dynamics from 8 weeks to 1.5 years, and on the testimony - until the elimination of complications. All complications were divided in accordance with their severity degree by Satava classification.

Results. 179 patients with early postoperation complications were found. In 62 (34.6 %) hyperthermia, in 56 (31.3 %) – persistent hematuria, and in 61 (34.1 %) – renal colic were detected.

Conclusion. In 60 % of patients with 1 cm stones and 50 % of patients with stones up to 1.5 cm early postoperative complications were found when the stone density was more than 1500 HU. When the stone size was 1.5 cm or more, the complications were found regardless of its density. When the stone size was less than 1 cm, early postoperative complications in the main were found at concrement's localization in upper ureter (59.5 % of the patients). In patients with

the stone density more than 1500 HU the highest number of complications was detected at the stones' localization in upper and lower ureter – 14 (37.8 %) and 16 (43.2 %) cases, respectively

Keywords: ureterolithiasis, ureteroscopy, contact ureterolithotripsy, ureteral stone density, ureteral stone size, complications

References

1. Borzhijevs'kyj, A. C., Sheremeta, R. Z., Zhuravchak, A. Z., Borzhijevs'kyj, O. A. (2003). Antegradna ureterolitotripsyja kameniv proksymal'nogo viddilu sechovodu. Praktychna medycyna, 9 (1), 63–66.
2. Vozianov, S. O., Borzhijevs'kyj, A. C. (2004). Porivnal'na harakterystyka riznyh metodiv endoskopichnoi' ureterolitotripsi'. Zhurnal Nacional'noi' akademii' medychnyh nauk Ukrayiny, 10 (1), 91–103.
3. Bapat, S. S., Pai, K. V., Purnapatre, S. S., Yadav, P. B., Padye, A. S. (2007). Comparison of Holmium Laser and Pneumatic Lithotripsy in Managing Upper-Ureteral Stones. Journal of Endourology, 21 (12), 1425–1428. doi: 10.1089/end.2006.0350
4. Hollenbeck, B. K., Schuster, T. G., Faerber, G. J., Wolf, J. S. (2001). Comparison of outcomes of ureteroscopy for ureteral calculi located above and below the pelvic brim. Urology, 58 (3), 351–355. doi: 10.1016/s0090-4295(01)01266-3
5. Hollenbeck, B. K., Schuster, T. G., Seifman, B. D., Faerber, G. J., Wolf, J. S. (2003). Identifying patients who are suitable for stentless ureteroscopy following treatment of urolithiasis. The Journal of Urology, 170 (1), 103–106. doi: 10.1097/01.ju.0000069546.53896.6a
6. Hollenbeck, B. K., Schuster, T. G., Faerber, G. J., Wolf, J. S. (2001). Routine placement of ureteral stents is unnecessary after ureteroscopy for urinary calculi. Urology, 57 (4), 639–643. doi: 10.1016/s0090-4295(01)00917-7
7. Panin, A. G., Stecik, O. V., Cjendin, A. K. (2002). Ocenka lazernoj kontaktnoj litotripsi v lechenii bol'nyh s kamnjami mochetochnikov. Moscow, 768–769.
8. Sernjak, Ju. P., Roshchin, Ju. V. (2005). Sovremennye metodicheskie podhody k lecheniju kamnej mochetochnika. Arhiv klinicheskoy i eksperimental'noj mediciny, 14 (1), 117–120.
9. Byrne, R. R., Auge, B. K., Kourambas, J., Munver, R., Delvecchio, F., Preminger, G. M. (2002). Routine Ureteral Stenting is Not Necessary After Ureteroscopy and Ureteropyeloscopy: A Randomized Trial. Journal of Endourology, 16 (1), 9–13. doi: 10.1089/089277902753483646
10. Chow, G. K., Patterson, D. E., Blute, M. L., Segura, J. W. (2003). Ureteroscopy: Effect of Technology and Technique on Clinical Practice. The Journal of Urology, 170 (1), 99–102. doi: 10.1097/01.ju.0000070883.44091.24
11. Geavlete, P., Georgescu, D., Nita, Gh., Mirculescu, V., Cauni, V., Aghamiri, S. (2004). Complications after 2.272 retrograde ureteroscopies: A single-center experience. BJU International, 94, 278.
12. Johnson, D. B., Pearle, M. S. (2004). Complications of ureteroscopy. Urologic Clinics of North America, 31 (1), 157–171. doi: 10.1016/s0094-0143(03)00089-2
13. Antonjan, I. M., Stecishin, R. V., Roshchin, Ju. V. (2016). The analysis of late postoperative complications after treatment of ureteral stones using ureteroscopy and contact ultrasonic lithotripsy. ScienceRise: Medical Science, 12 (8), 63–72. doi: 10.15587/2519-4798.2016.87890
14. Ziae, S. A. M., Halimi, M. R., Aminsharifi, A., Shafi, H., Basiri, A. (2007). Management of 10–15 mm proximal ureteral stones: ureteroscopy or ESWL, a prospective patient preference trial. Urology, 70 (3), 220–241. doi: 10.1016/j.urology.2007.06.801
15. Chang, C.-P., Huang, S.-H., Tai, H.-L., Wang, B.-F., Yen, M.-Y., Huang, K.-H. et. al. (2001). Optimal Treatment for

Distal Ureteral Calculi: Extracorporeal Shockwave Lithotripsy versus Ureteroscopy. Journal of Endourology, 15 (6), 563–566. doi: 10.1089/089277901750426292

16. Glybochko, P. V., Aljaev, Ju. G., Rapoport, L. M., Carrichenko, D. G., Aksenov, A. V. (2011). Oslozhnenija kontaktnej ureterolitotripsi. Saratovskij nauchno-medicinskij zhurnal, 7 (S2), S139.

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THE INFLUENCE OF COMPETITION ON QUALITY OF HOSPITAL TREATMENT FROM PHYSICIAN BEHAVIOR PERSPECTIVE (THEORETICAL MODEL VERIFICATION WITH CASE PRESENTATION FROM VINNITSIA, UKRAINE)

p. 25–31

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The aim of the study was to check theoretical proposition of elaborated by our research team theoretical model [1], i. e. physician's emphasis to clinical hours instead of nonclinical within the relenting competition may interfere quality.

Methods. We collected the data by stratified panel design between departments of the city hospital No. 1, starting in 2008 with randomized inclusion. Thereafter, to sustain statistical significance we got on with total coverage up to January 31, 2012. Thus, we considered 2680 admission cases totally. Length of period between subsequent admissions (LBA) considered as the measure of treatment quality. We proceeded the data with competing risk modelling having in mind 2 types of subsequent admissions, that is the same cause of next admission and the different one.

Results. Lengthier hospital staying provided within the competition indeed safeguarded quality (increase in LBA) in case of the same cause admission, Z-test scored 1,957 with $p=0,025$. The effect was not significant for the next admissions due to different cause with Z scoring 0,128, $p_z=0,449$. Still effect is positive ($\Theta=1,014$). We think it's important for validation of deduction, so far as better quality reduces patient's frailty for both types of admissions.

Conclusion. We empirically checked the hypothesis stemming from theoretical model of physician's behavior on part of possible impairment of quality under market monopoly. The theoretical model unveiled one of the key issue – physician's emphasis toward clinical hours instead of nonclinical that necessarily interferes the quality. Empirical verification based on instances of patient overloads in the process of health reform in the city of Vinnitsa. Findings supported hypothesis, i. e. physician's emphasis toward clinical hours instead of nonclinical within relenting competition indeed impinged on quality of treatment indicted by LBA shortening. We clarified the LBA increase with lengthier hospital staying envisaged under competition. Z-test scored 1,957 with $p=0,025$ in case of the same cause admission, and it was insignificant for next admissions due to different cause with the same direction of the effect

Keywords: quality of treatment, length of period between subsequent admissions, physician's behavior, competition

References

1. Ocheredko, O. M., Yaremena, I. V. (2014). Econometric model of physician behavior in hospitals with empirical verification under reform of medical care in Vinnitsa town. Actual problems of clinical and preventive medicine, 2 (1), 3–12.
2. Echevin, D., Fortin, B. (2011). Physician Payment Mechanisms, Hospital Length of Stay and Risk of Readmission: A Natural Experiment. SSRN Electronic Journal, 11-12. doi: 10.2139/ssrn.1825207
3. Fortin, B., Jacquemet, N., Shearer, B. (2008). Policy Analysis in the Health-Services Market: Accounting for Quality and Quantity. Annales d'Economie et de Statistiques, 91-92, 293–319.
4. Yaremena, I. V. (2015). Study of influence of competition in duration hospitalization based field experiments. Experimental and clinical medicine, 2 (67), 155–161.
5. Cutler, D. M. (1995). The Incidence of Adverse Medical Outcomes Under Prospective Payment. Econometrica, 63 (1), 29–50. doi: 10.2307/2951696
6. Keiding, N., Andersen, P., Klein, J. (1997). The role of frailty models and accelerated failure time models in describing heterogeneity due to omitted covariates. Statistics in Medicine, 16 (2), 215–24. doi: 10.1002/(sici)1097-0258(19970130)16:2<215::aid-sim481>3.3.co;2-a
7. Folland, S., Goodman, A. C., Stano, M. (2012). The economics of health and health care. London: Routledge, 624.
8. Gaynor, M., Vogt, W. B. (2003). Competition among Hospitals. The RAND Journal of Economics, 34 (4), 764–785. doi: 10.2307/1593787
9. Grytten, J., Sorensen, R. J. (2008). Patient choice and access to primary physician services in Norway. Health Economics, Policy and Law, 4 (01), 11–27. doi: 10.1017/s1744133108004623
10. McGuire, T. G. (2000). Physician Agency. Chep. 9. Handbook of Health Economics. Amsterdam: Elsevier, 461–536. doi: 10.1016/s1574-0064(00)80168-7
11. Gaynor, M., Gertler, P. (1995). Moral Hazard and Risk Spreading in Partnerships. The RAND Journal of Economics, 26 (4), 591–614. doi: 10.2307/2556008
12. McGuire, T. G., Pauly, M. V. (1991). Physician response to fee changes with multiple payers. Journal of Health Economics, 10 (4), 385–410. doi: 10.1016/0167-6296(91)90022-f
13. Echevin, D., Fortin, B. (2011). Physician Payment Mechanisms, Hospital Length of Stay and Risk of Readmission: A Natural Experiment. SSRN Electronic Journal, 44. doi: 10.2139/ssrn.1919071
14. Yaremena, I. V., Ocheredko, O. M. (2015). Physician behavior in hospital in competitive environment. Biology and Medical Sciences. Vienna, 203–208.

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APPLICATION OF DENDRITIC CELL BASED VACCINATION IN ADJUVANT TREATMENT OF PATIENTS WITH PANCREATIC CANCER

p. 31–36

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Pancreatic cancer (PC) is included in the seven most widespread cancers and is the most aggressive of all gastrointestinal cancers. Unfortunately, all known modalities in PC treatment do not provide the desired result. Anti-tumor vaccinotherapy (ATV) seems to be promising. It causes a specific immune response (IR) directed to the tumor-associated antigens (TAA), included into the vaccine. The original construction based on dendritic cells (DC) was offered as ATV: mechano-activated lyophilized tumor cells (MALTC), which was used with adjuvant chemotherapy simultaneously.

The aim of our research was to study the influence of DC- MALTC-ATV in adjuvant treatment composition on general survival of PC patients.

Materials and methods. After radical surgery, the patients were randomly divided in two groups: basic group (22 patients), which received DC-vaccine in addition to adjuvant chemotherapy (Gemcitabine+Tegafur), and control group (21 patient), which received only chemotherapy. The general survival rate was calculated using Kaplan-Meier estimator; comparison of survival rates between groups was carried out by Logrank test.

Results. The overall survival median is 36 and 11 months for basic and control groups, respectively. By the moment of statistical analysis on the 35th month of observation, 29 % of patients from the control group survived compared to 50 % of the basic group patients.

Conclusion. Therefore, the use of DC- MALTC-ATV in complex with adjuvant chemotherapy significantly improves general survival rates in PC patients ($p=0,02$)

Keywords: pancreatic cancer, anti-tumor vaccine, dendritic cells, survival, immune system

References

1. Aerts, J. G., Lievense, L. A., Hoogsteden, H. C., Hegmans, J. P. (2014). Immunotherapy prospects in the treatment of lung cancer and mesothelioma. Transl. Lung Cancer Res., 3 (1), 34–45.
2. Tartour, E., Zitvogel, L. (2013). Lung cancer: potential targets for immunotherapy. The Lancet Respiratory Medicine, 1 (7), 551–563. doi: 10.1016/s2213-2600(13)70159-0
3. Anagnostou, V. K., Brahmer, J. R. (2015). Cancer Immunotherapy: A Future Paradigm Shift in the Treatment of Non-Small Cell Lung Cancer. Clinical Cancer Research, 21 (5), 976–984. doi: 10.1158/1078-0432.ccr-14-1187
4. Kenter, G. G., Welters, M. J. P., Valentijn, A. R. P. M., Lowik, M. J. G., Berends-van der Meer, D. M. A., Vloon, A. P. G. et. al. (2009). Vaccination against HPV-16 Oncoproteins for Vulvar Intraepithelial Neoplasia. New England Journal of Medicine, 361 (19), 1838–1847. doi: 10.1056/nejmoa0810097
5. Slingluff, C. L., Lee, S., Zhao, F., Chianese-Bullock, K. A., Olson, W. C., Butterfield, L. H. et. al. (2013). A Randomized Phase II Trial of Multiplepeptide Vaccination with Melanoma Peptides for Cytotoxic T Cells and Helper T Cells for Patients with Metastatic Melanoma (E1602). Clinical Cancer Research, 19 (15), 4228–4238. doi: 10.1158/1078-0432.ccr-13-0002
6. Nemunaitis, J., Dillman, R. O., Schwarzenberger, P. O., Senzer, N., Cunningham, C., Cutler, J. et. al. (2006). Phase II Study

- of Belagenpumatumcel-L, a Transforming Growth Factor Beta-2 Anti-sense Gene-Modified Allogeneic Tumor Cell Vaccine in Non-Small-Cell Lung Cancer. *Journal of Clinical Oncology*, 24 (29), 4721–4730. doi: 10.1200/jco.2005.05.5335
7. Palucka, K., Banchereau, J. (2012). Cancer immunotherapy via dendritic cells. *Nature Reviews Cancer*, 12 (4), 265–277. doi: 10.1038/nrc3258
 8. Hegmans, J. P., Veltman, J. D., Lambers, M. E., de Vries, I. J. M., Fidgor, C. G., Hendriks, R. W. et. al. (2010). Consolidative Dendritic Cell-based Immunotherapy Elicits Cytotoxicity against Malignant Mesothelioma. *American Journal of Respiratory and Critical Care Medicine*, 181 (12), 1383–1390. doi: 10.1164/rccm.200909-1465oc
 9. Giaccone, G., Bazhenova, L. A., Nemunaitis, J., Tan, M., Juhasz, E., Ramlau, R. et. al. (2015). A phase III study of belagenpumatumcel-L, an allogeneic tumour cell vaccine, as maintenance therapy for non-small cell lung cancer. *European Journal of Cancer*, 51 (16), 2321–2329. doi: 10.1016/j.ejca.2015.07.035
 10. Butts, C., Socinski, M. A., Mitchell, P. L., Thatcher, N., Havel, L., Krzakowski, M. et. al. (2014). Tecemotide (L-BLP25) versus placebo after chemoradiotherapy for stage III non-small-cell lung cancer (START): a randomised, double-blind, phase 3 trial. *The Lancet Oncology*, 15 (1), 59–68. doi: 10.1016/s1470-2045(13)70510-2
 11. Wang, M., Cao, J.-X., Liu, Y.-S., Xu, B.-L., Li, D., Zhang, X.-Y. et. al. (2015). Evaluation of tumour vaccine immunotherapy for the treatment of advanced non-small cell lung cancer: a systematic meta-analysis. *BMJ Open*, 5 (4), e006321–e006321. doi: 10.1136/bmjopen-2014-006321
 12. Dammeijer, F., Lievense, L. A., Veerman, G. D. M., Hoogsteden, H. C., Hegmans, J. P., Arends, L. R., Aerts, J. G. (2016). Efficacy of Tumor Vaccines and Cellular Immunotherapies in Non-Small-Cell Lung Cancer: A Systematic Review and Meta-Analysis. *Journal of Clinical Oncology*, 34 (26), 3204–3212. doi: 10.1200/jco.2015.66.3955
 13. Khranovska, N., Skachkova, O., Ganul, A. et. al. (2013). Results from phase III trial of dendritic cell based vaccine immunotherapy in patients with IIB-IIIA stage non-small-cell lung cancer. *Lung cancer. J Thorac. Oncol. Australia*, 15, 689.
 14. Orel, V. Je., Grinevich, Ju. A., Dzjatkovskaja, N. N. et. al.; Ju. A. Grinevicha (Ed.) (2008). Bioinzhernaja tehnologija poluchenija opuholespecificeskogo antigena na osnove mehanohimicheski radiacionno-geterogenizirovannyh opuholevyh kletok. Specyfichna imunoterapija v onkologii'. Kyiv: Zdorov'e, 31–38.
 15. Hranovskaja, N. N., Skachkova, O. V., Zemskov, S. V. (2017). Phenotypic features of generated dendritic cells in patients with pancreatic cancer immunotherapy. *ScienceRise: Medical Science*, 1 (9), 10–14. doi: 10.15587/2519-4798.2017.90950
 16. Takahashi, K., Toyokawa, H., Takai, S., Satoi, S., Yanagimoto, H., Terakawa, N. et. al. (2005). Surgical influence of pancreatectomy on the function and count of circulating dendritic cells in patients with pancreatic cancer. *Cancer Immunology, Immunotherapy*, 55 (7), 775–784. doi: 10.1007/s00262-005-0079-5
 17. Plate, J. M. D., Plate, A. E., Shott, S., Bograd, S., Harris, J. E. (2005). Effect of gemcitabine on immune cells in subjects with adenocarcinoma of the pancreas. *Cancer Immunology, Immunotherapy*, 54 (9), 915–925. doi: 10.1007/s00262-004-0638-1
 18. Bauer, C., Sterzik, A., Bauernfeind, F., Duewell, P., Conrad, C., Kiefl, R. et. al. (2014). Concomitant gemcitabine therapy negatively affects DC vaccine-induced CD8+ T-cell and B-cell responses but improves clinical efficacy in a murine pancreatic carcinoma model. *Cancer Immunology, Immunotherapy*, 63 (4), 321–333. doi: 10.1007/s00262-013-1510-y
 19. Ghansah, T., Vohra, N., Kinney, K., Weber, A., Kodumudi, K., Springett, G. et. al. (2013). Dendritic cell immuno-therapy combined with gemcitabine chemotherapy enhances survival in a murine model of pancreatic carcinoma. *Cancer Immunology, Immunotherapy*, 62 (6), 1083–1091. doi: 10.1007/s00262-013-1407-9
 20. Vincent, J., Mignot, G., Chalmin, F., Ladoire, S., Bruchard, M., Chevriaux, A. et. al. (2010). 5-Fluorouracil Selectively Kills Tumor-Associated Myeloid-Derived Suppressor Cells Resulting in Enhanced T Cell-Dependent Antitumor Immunity. *Cancer Research*, 70 (8), 3052–3061. doi: 10.1158/0008-5472.can-09-3690
 21. Ciliberto, D., Botta, C., Correale, P., Rossi, M., Caraglia, M., Tassone, P., Tagliaferri, P. (2013). Role of gemcitabine-based combination therapy in the management of advanced pancreatic cancer: A meta-analysis of randomised trials. *European Journal of Cancer*, 49 (3), 593–603. doi: 10.1016/j.ejca.2012.08.019
 22. Murakami, Y., Uemura, K., Sudo, T., Hayashidani, Y., Hashimoto, Y., Nakagawa, N. et. al. (2008). Adjuvant gemcitabine plus S-1 chemotherapy after surgical resection for pancreatic adenocarcinoma. *The American Journal of Surgery*, 195 (6), 757–762. doi: 10.1016/j.amjsurg.2007.04.018
 23. Kondo, N., Murakami, Y., Uemura, K., Sudo, T., Hashimoto, Y., Nakashima, A., Sueda, T. (2011). Combined Analysis of Dihydropyrimidine Dehydrogenase and Human Equilibrative Nucleoside Transporter 1 Expression Predicts Survival of Pancreatic Carcinoma Patients Treated with Adjuvant Gemcitabine Plus S-1 Chemotherapy after Surgical Resection. *Annals of Surgical Oncology*, 19 (S3), 646–655. doi: 10.1245/s10434-011-2140-2
 24. Menges, P., Kessler, W., Kloecker, C., Feuerherd, M., Gaubert, S., Diedrich, S. et. al. (2012). Surgical Trauma and Post-operative Immune Dysfunction. *European Surgical Research*, 48 (4), 180–186. doi: 10.1159/000338196
 25. Dronov, A. I., Zemskov, S. V., Krjuchina, E. A. (2016). Vypolnenie total'noj pankreatjektomii po povodu zlokachestvennyh novoobrazovanij podzeludochnoj zhelez. *Klin. Hirurgija*, 10, 26–30.
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- THE STUDY OF EMPLOYEE SATISFACTION AND BURN-OUT SYNDROME IN HEALTHCARE WORKERS**
- p. 36–40**
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- Aim.** Determination of burnout syndrome formation features in healthcare workers “satisfied” and “not satisfied” with their job for the further development of recommendations to prevent it.
- Methods.** The study of employee satisfaction in 164 healthcare workers of Kherson city clinical hospital named after E. E. Karabesh (Kherson, Ukraine) by questionnaire (response was 87%). The responders answered the question: “Are you satisfied with your job at the hospital?”. The answers were evaluated by 7-point scale. The responders were divided in two groups according their answers: the first group ($n=120$) consisted of the satisfied with job (7, 6, 5 points), the second group ($n=34$) consisted of the not satisfied with job (3, 2, 1 points). The responders ($n=10$) answered “can not decide” (4 points) were removed from the further analysis.
- Results.** It was found that the share of people having burnout syndrome among the “not satisfied” (65.0 %) is significantly higher ($p<0,05$) comparing to the “satisfied” group (40.0 %). In the responders from the “not satisfied” group, the symptoms of “stressful

circumstances experiencing" (46 %), "*professional duties reduction*" (38 %), "*depersonalization*" (35 %), "*expansion the scope of keeping emotions*" (30 %), "*inadequate selective emotional response*" (27 %) manifested the most often. In the "satisfied" group, the symptoms of "*expansion the scope of keeping emotions*" (15 %) and "*stressful circumstances experiencing*" (14 %) were the most frequent manifestation of burnout syndrome. There is a negative relationship between employee satisfaction and the level of severity of burnout syndrome ($P < 0,001$).

Conclusion. The probability of burnout syndrome is higher in healthcare workers unsatisfied with their job. In these workers the syndrome leads to deterioration professional capacity and decrease in quality of medical care by "*professional duties reduction*" and "*depersonalization*" symptoms. In the "satisfied" workers it leads to quality of communication and their health deterioration by "*expansion the scope of keeping emotions*" and "*psychosomatic and psycho-vegetative violations*" symptoms. Employee satisfaction is a factor for burnout syndrome prevention

Keywords: burnout syndrome, employee satisfaction, healthcare workers, medical care quality

References

1. West, C. P., Dyrbye, L. N., Erwin, P. J., Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *The Lancet*, 388 (10057), 2272–2281. doi: 10.1016/s0140-6736(16)31279-x
2. Orton, P., Orton, C., Pereira Gray, D. (2012). Depersonalised doctors: a cross-sectional study of 564 doctors, 760 consultations and 1876 patient reports in UK general practice. *BMJ Open*, 2 (1), e000274. doi: 10.1136/bmjjopen-2011-000274
3. Siu, C., Yuen, S. K., Cheung, A. (2012). Burnout among public doctors in Hong Kong: cross-sectional survey. *Hong Kong Medical Journal*, 18 (3), 186–192.
4. Garcia, T. T., Garcia, P. C. R., Molon, M. E., Piva, J. P., Tasker, R. C., Branco, R. G., Ferreira, P. E. (2014). Prevalence of Burnout in Pediatric Intensivists. *Pediatric Critical Care Medicine*, 15 (8), e347–e353. doi: 10.1097/pcc.0000000000000218
5. Estryn-Behar, M., Doppia, M.-A., Guetarni, K., Fry, C., Machet, G., Pelloux, P. et al. (2010). Emergency physicians accumulate more stress factors than other physicians—results from the French SESMAT study. *Emergency Medicine Journal*, 28 (5), 397–410. doi: 10.1136/emj.2009.082594
6. Horachuk, V. V. (2009). Naukove obhruntuvannya sistemy profesionnoyi reabilitatsiyi likariv-pediatriv poliklinichnykh zakladiv. Kharkiv, 22.
7. Bragard, I., Dupuis, G., Fleet, R. (2015). Quality of work life, burnout, and stress in emergency department physicians. *European Journal of Emergency Medicine*, 22 (4), 227–234. doi: 10.1097/eme.0000000000000194
8. Silkina, A. A., Canshokova, M. K., Sergeeva, E. S. (2014). Sindrom «ehmocional'nogo vygoraniya» sredi vrachej razlichnyh special'nostej v Rossii i za rubezhem. Byulleten' medicinskih Internet-konferencij, 4 (11), 1247–1249.
9. Aymedov, K. V. (2015). Syndrom emotsiynoho vyhorannya u likariv-khirurhiv v zalezhnosti vid profesionnoho stazhu. Psykhichne zdorov'ya, 1, 7–9.
10. Gazelle, G., Liebschutz, J. M., Riess, H. (2014). Physician Burnout: Coaching a Way Out. *Journal of General Internal Medicine*, 30 (4), 508–513. doi: 10.1007/s11606-014-3144-y
11. Williams, E. S., Manwell, L. B., Konrad, T. R., Linzer, M. (2007). The relationship of organizational culture, stress, satisfaction, and burnout with physician-reported error and suboptimal patient care. *Health Care Management Review*, 32 (3), 203–212. doi: 10.1097/01.hmr.0000281626.28363.59
12. Hall, L. H., Johnson, J., Watt, I., Tsipa, A., O'Connor, D. B. (2016). Healthcare Staff Wellbeing, Burnout, and Patient Safety: A Systematic Review. *PLOS ONE*, 11 (7), e0159015. doi: 10.1371/journal.pone.0159015
13. Dewa, C. S., Loong, D., Bonato, S., Thanh, N. X., Jacobs, P. (2014). How does burnout affect physician productivity? A systematic literature review. *BMC Health Services Research*, 14 (1), 325. doi: 10.1186/1472-6963-14-325
14. Bragard, I., Fleet, R., Etienne, A.-M., Archambault, P., Legare, F., Chauny, J.-M. et al. (2015). Quality of work life of rural emergency department nurses and physicians: a pilot study. *BMC Research Notes*, 8 (1), 116. doi: 10.1186/s13104-015-1075-2
15. Steinhardt, M. A., Dolbier, C. L., Gottlieb, N. H., McCalister, K. T. (2003). The Relationship Between Hardiness, Supervisor Support, Group Cohesion, and Job Stress as Predictors of Job Satisfaction. *American Journal of Health Promotion*, 17 (6), 382–389. doi: 10.4278/0890-1171-17.6.382
16. Janicijevic, I., Seke, K., Djokovic, A., Filipovic, J. (2013). Healthcare workers satisfaction and patient satisfaction – where is the linkage? *Hippokratia*, 17 (2), 157–162.
17. Rajgorodskij, D. Ya. (2005). Prakticheskaya psihodiagnostika. Metodiki i testy. Samara: BAHRAH-M, 672.
18. Fisher, R. A., Yates, F. (1974). Statistical tables for biological, agricultural and medical research. Harlow: Longman, 146.
19. Chen, Y. M., Fang, J. B. (2016). Correlation Between Nursing Work Environment and Nurse Burnout, Job Satisfaction, and Turnover Intention in the Western Region of Mainland China. *Hu Li Za Zhi*, 63 (1), 87–98.
20. Bauer, J., Groneberg, D. (2015). Working conditions of physicians in hospitals. *DMW-Deutsche Medizinische Wochenschrift*, 140 (15), e150–e158. doi: 10.1055/s-0041-103165
21. Regehr, C., Glancy, D., Pitts, A., LeBlanc, V. R. (2014). Interventions to Reduce the Consequences of Stress in Physicians. *The Journal of Nervous and Mental Disease*, 202 (5), 353–359. doi: 10.1097/nmd.0000000000000130

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THE ANALYSIS OF VIOLATION FEATURES OF HYPO-CURATION TYPE PHARMACOLOGICAL COMPLIANCE IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

p. 40–44

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Aim. To determine features and triggers of hypo-curation type pharmacological compliance violations in patients with type 2 diabetes.

Materials and methods. 486 patients with type 2 diabetes mellitus were examined on the clinical basis of therapy, clinical pharmacology and endocrinology department of the State Institution "Zaporizhzhia medical academy of post-graduate education of Ministry of health of Ukraine".

The patients were divided in two groups depending on type 2 diabetes severity levels: 312 patients with DM type 2 of moderate severity formed the first clinical group; the other 174 patients with severe DM type 2 formed the second clinical group.

Anamnesis and clinical examination, clinical and psychopathological, and statistical methods were used.

Results. In result of research, specific features and triggers of hypo-curation type pharmacological compliance violations in patients with type 2 diabetes were determined.

It was found, that pharmacological compliance violations in patients with type 2 diabetes were observed in 76.34 % of cases, in 66.87 % among them hypo-curation type pharmacological compliance violations were identified. Structural components of hypo-curation type pharmacological compliance were determined. Features of carbohydrate metabolism disorders in patients with hypo-curation type pharmacological compliance violations were observed. Incompliance factors as triggers of hypo-curation type pharmacological compliance violations in patients with type 2 diabetes were selected; they were classified, and their correlation was determined.

Conclusion. The notion about hypo-curation type pharmacological compliance violations in patients with type 2 diabetes was expanded. That eliminated gaps in scientific knowledge about pharmacological compliance violations in patients with type 2 diabetes

Keywords: type 2 diabetes mellitus, compliance, incompliance, psychological disorders, psychodiagnostics

References

1. Grimes, R. T., Bennett, K., Hoey, H., Tilson, L., Henman, M. C. (2016). A retrospective cohort analysis of hypoglycaemic and cardiovascular agent use in young adults in the Irish primary care setting. *Irish Journal of Medical Science*, 1–10. doi: 10.1007/s11845-016-1491-x
2. Gentili, P., Maldonato, A., Bloise, D., Burla, F., Coronel, G., Di Paolantonio, T. (2000). Personality variables and compliance with insulin therapy in Type 2 diabetic subjects. *Diabetes, nutrition & metabolism*, 13 (1), 1–6.
3. Jaacks, L. M., Siegel, K. R., Gujral, U. P., Narayan, K. M. V. (2016). Type 2 diabetes: A 21st century epidemic. *Best Practice & Research Clinical Endocrinology & Metabolism*, 30 (3), 331–343. doi: 10.1016/j.beem.2016.05.003
4. Meetoo, D., McGovern, P., Safadi, R. (2007). An epidemiological overview of diabetes across the world. *British Journal of Nursing*, 16 (16), 1002–1007. doi: 10.12968/bjon.2007.16.16.27079
5. Roy, T., Lloyd, C. E. (2012). Epidemiology of depression and diabetes: A systematic review. *Journal of Affective Disorders*, 142, S8–S21. doi: 10.1016/s0165-0327(12)70004-6
6. The Protocol of rendering medical care to patients not complicated by diabetes (2009). Ministry of Healthcare of Ukraine, No. 574. Available at: http://www.moz.gov.ua/ua/portal/dn_20090805_574.html
7. Unified clinical protocol of primary, emergency, secondary (specialized) and tertiary (highly specialized) medical care. Diabetes in young people and adults (2014). Ministry of Healthcare of Ukraine, No. 1021. Available at: http://mtd.dec.gov.ua/images/dodatki/2014_1021_CD1_dor/2014_1021_nakaz_CD1_dor.pdf
8. Bairy, S., Kumar, A. M. V., Raju, M., Achanta, S., Naik, B., Tripathy, J. P., Zachariah, R. (2016). Is adjunctive naturopathy associated with improved glycaemic control and a reduction in need for medications among type 2 Diabetes patients? A prospective cohort study from India. *BMC Complementary and Alternative Medicine*, 16 (1), 290. doi: 10.1186/s12906-016-1264-0
9. Huang, C. H., Lin, P. C., Chang Yeh, M., Lee, P. H. (2017). A Study on Self-Care Behaviors and Related Factors in Diabetes Patients. *Hu Li Za Zhi*, 64 (1), 61–69.
10. Roohafza, H., Kabir, A., Sadeghi, M., Shokouh, P., Ahmadzad-Asl, M., Khadem-Maboudi, A. A., Sarrafzadegan, N. (2016). Stress as a risk factor for noncompliance with treatment regimens in patients with diabetes and hypertension. *ARYA Atheroscler*, 12 (4), 166–171.

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RARE TRISOMIES: FREQUENCY, RANGE, LETHALITY AT EMBRYONIC AND FETAL STAGES OF PRENATAL DEVELOPMENT

p. 45–51

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Aim. The study of population frequency, mortality and share of rare autosomal trisomies at different stages of fetal development for the further determination of the expected proportion of false negative results at chromosome abnormalities (CA) selective diagnostics using during reproductive losses and prenatal diagnostics.

Materials and methods. Karyotyping of 1808 samples of missed abortion concept products, 1572 induced abortions, 1329 chorionic villus biopsy samples, 2240 placenta biopsy samples, and 6120 samples of amniotic fluid (13069 total) was carried out.

Results. The share of T21,18,13 at pre-embryonic stage was only 6.33 %, while the share of “rare” trisomies was 93.67 %. In the first trimester the mean share of rare trisomies (T1-12, 14-17, 19, 20, 22) was 41.13%; among prenatally diagnosed 11–14 weeks fetuses was 3.01 %, 15–22 weeks fetuses – 1.68 %, and after 23 weeks – 2.22 %. It means that the mean share of rare trisomies at prenatal diagnostics can be 2.3 % among newborns.

Conclusion. The share of false negative results at autosomal trisomies detection using commercial selective test systems covering T13, T18, T21, T9 and T22 in missed abortion group can be 41 %, and at prenatal diagnostics within 11–23 weeks – 2.3 %

Keywords: Chromosomal abnormalities, rare trisomy, mortality, Anembryonic gestation at the embryonic stage, fetal period

References

1. Boue, J., Boue, A., Lazar, P. (1975). Retrospective and prospective epidemiological studies of 1500 karyotyped spontaneous human abortions. *Teratology*, 12 (1), 11–26. doi: 10.1002/tera.1420120103
2. Kline, J., Stein, Z. (1987). Epidemiology of Chromosomal Anomalies in Spontaneous Abortion: Prevalence, Manifestation and Determinants. *Spontaneous and Recurrent Abortion*. Chicago: Oxford Blackwell Scientific, 29–50.
3. Menasha, J., Levy, B., Hirschhorn, K., Kardon, N. B. (2005). Incidence and spectrum of chromosome abnormalities in spontaneous abortions: New insights from a 12-year study. *Genetics in Medicine*, 7 (4), 251–263. doi: 10.1097/01.gim.0000160075.96707.04
4. Hassold, T., Chen, N., Funkhouser, J., Jooss, T., Manuel, B., Matsuura, J. et al. (1980). A cytogenetic study of 1000 spontaneous abortions. *Annals of Human Genetics*, 44 (2), 151–164. doi: 10.1111/j.1469-1809.1980.tb00955.x
5. Carr, D. H. (1965). Chromosome studies in spontaneous abortions. *J. Obstet. Gynecol.*, 26, 308–326.
6. Veropotveljan, M. P., Kodunov, L. O., Veropotveljan, P. M., Nesterchuk, D. O., Goruk, P. S., Kostynec', V. M. (2012). *Vyznachennja pervynnoi' populjacijnoi' chastyoti hromosomnoi' pa-*

- tologii' i rann'oi' embrional'noi' letal'nosti v Ukrayini. Zdorov'e zhenshhiny, 9, 108–114.
7. Mikamo, K. (1970). Anatomic and chromosomal anomalies in spontaneous abortion. American Journal of Obstetrics and Gynecology, 106(2), 243–254. doi: 10.1016/0002-9378(70)90269-3
8. Boue, J. G. (1970). Les aberrations chromosomiques dans les avortemens spontanes humains. Press Med., 78 (14), 635–641.
9. Jacobs, P. A., Hassold, T. J. (1995). The Origin of Numerical Chromosome Abnormalities. Advances in Genetics, 101–133. doi: 10.1016/s0065-2660(08)60332-6
10. Papp, Z. (1990). Obstetric Genetics. Budapest: Academia Kiado, 627.
11. Baranov, V. S., Kuznecova, T. V. (2006). Citogenetika jembrional'nogo razvitiya cheloveka. Sankt-Peterburg: Izdatel'stvo N-L, 640.
12. Zimmermann, B., Hill, M., Gmelos, G., Demko, Z., Banjevic, M., Baner, J. et. al. (2012). Noninvasive prenatal aneuploidy testing of chromosomes 13, 18, 21, X, and Y, using targeted sequencing of polymorphic loci. Prenatal Diagnosis, 32 (13), 1233–1241. doi: 10.1002/pd.3993
13. Nicolaides, K. H., Syngelaki, A., Gil, M., Atanasova, V., Markova, D. (2013). Validation of targeted sequencing of single-nucleotide polymorphisms for non-invasive prenatal detection of aneuploidy of chromosomes 13, 18, 21, X, and Y. Prenatal Diagnosis, 33 (6), 575–579. doi: 10.1002/pd.4103
14. Jackson, J., Hamar, B., Lazar, E., Lim, K., Rodriguez, D., Stock, K. et. al. (2014). Nuchal translucency measurement plus non-invasive prenatal testing to screen for aneuploidy in a community-based average-risk population. Ultrasound in Obstetrics & Gynecology, 44 (4), 491–491. doi: 10.1002/uog.13424
15. Evangelidou, P., Alexandrou, A., Moutafi, M., Ioannides, M., Antoniou, P., Koumbaris, G. et. al. (2013). Implementation of High Resolution Whole Genome Array CGH in the Prenatal Clinical Setting: Advantages, Challenges, and Review of the Literature. BioMed Research International, 2013, 1–14. doi: 10.1155/2013/346762
16. Boon, E. M. J., Faas, B. H. W. (2013). Benefits and limitations of whole genome versus targeted approaches for non-invasive prenatal testing for fetal aneuploidies. Prenatal Diagnosis, 33 (6), 563–568. doi: 10.1002/pd.4111
17. Prenatal screening and diagnosis of chromosomal and genetic conditions in the fetus in pregnancy (2016). The Royal Australian and New Zealand College of Obstetricians and Gynaecologists, 37.
18. Veropotveljan, M. P., Nesterchuk, D. O., Kodunov, L. O. (2012). Pat. No. 77426 UA. Sposob vyznachennja kariotypu plodu pry spontannyh abortah ta mertyvonarodzhenni. MPK: A61B 5/00, G01N 33/00. No. u201210129; declared: 23.08.2012.; published: 11.02.2013, Bul. No. 3.
19. Gulejuk, N. L., Zastavna, D. V., Gnatejko, O. Z., Bezkorovajna, G. M. (2005). Metody kul'tyvuvannja amniocytiv. Kyiv, 18.
20. Watt, J. L., Templeton, A. A., Messinis, I., Bell, L., Cunningham, P., Duncan, R. O. (1987). Trisomy 1 in an eight cell human pre-embryo. Journal of Medical Genetics, 24 (1), 60–64. doi: 10.1136/jmg.24.1.60
21. Hanna, J. S., Shires, P., Matile, G. (1997). Trisomy 1 in a clinically recognized pregnancy. American Journal of Medical Genetics, 68 (1), 98–98. doi: 10.1002/(sici)1096-8628(19970110)68:1<98::aid-ajmg20>3.3.co;2-i
22. Dunn, T. M., Grunfeld, L., Kardon, N. B. (2001). Trisomy 1 in a clinically recognized IVF pregnancy. American Journal of Medical Genetics, 99 (2), 152–153. doi: 10.1002/1096-8628(2000)9999:999<00::aid-ajmg1130>3.0.co;2-p
23. Banzai, M., Sato, S., Matsuda, H., Kanasugi, H. (2004). Trisomy 1 in a case of a missed abortion. Journal of Human Genetics, 49 (7). doi: 10.1007/s10038-004-0164-1
24. Wellesley, D., Dolk, H., Boyd, P. A., Greenlees, R., Haesler, M., Nelen, V. et. al. (2012). Rare chromosome abnormalities, prevalence and prenatal diagnosis rates from population-based congenital anomaly registers in Europe. European Journal of Human Genetics, 20 (5), 521–526. doi: 10.1038/ejhg.2011.246