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## ЭНЗИМАТИЧЕСКИЙ АЛГОРИТМ ДИФФЕРЕНЦИАЛЬНОЙ ДИАГНОСТИКИ ПАЦИЕНТОВ С БОЛЕЗНЬЮ ПАРКИНСОНА, КОТОРЫЕ РЕЗИСТЕНТНЫ К ФАРМАКОТЕРАПИИ Соколик В.В.

Выявлена гипоактивность лецетин-холестерол ацилтрансферазы, гиперактивность ферментов липопротеинлиполиза и отсутствие изменений в гаммаглутамил транспептидазной активности у пациентов с болезнью Паркинсона. В гепариновом тесте установлена противоположная динамика ГГТ активности в контроле и у пациентов с умеренными когнитивными нарушениями, а также отсутствие влияния гепарина на данный показатель при болезни Паркинсона. Предложен энзиматический алгоритм дифференциальной диагностики резистентной фармакотерапии формы болезни Паркинсона.

**Ключевые слова:** лецитин-холестерол ацилтрансфераза, гамма-глутамил транспептидаза, ферменты липопротеинлиполиза, болезнь Паркин-сона.

# ENZYMIC ALGORITHM OF DIFFERENTIAL DIAGNOSTICS AT PATIENTS WITH PARKINSON'S DISEASE WHICH RESISTENT TO PHARMACOTHERAPEUTIC Sokolik V. V.

It is established hypoactivity of lecithin-cholesterol acyltransferase, hyperacti-vity of lipoproteinlipase enzymes and absence of changes in gamma-glutamyl transpeptidase activity in patients with Parkinson's disease. In a heparin test is determined the contrast dynamics of GGT activity in control and in patients with a moderate cognitive disturbs, and also absence of the heparin influencing on this index at Parkinson's disease. Enzymic algorithm of differential diagnostics of the resistent to pharmacotherapeutics form of Parkinson's disease.

**Key words:** lecithin-cholesterol acyltransferase, gamma-glutamyl transpepti-dase, lipoproteinlipase enzymes, Parkinson's disease.

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#### **SEASON MORBIDITY ON TETANUS IN UKRAINE**

Main epidemiological peculiarities and regularities of morbidity on tetanus are remained unchanged in Ukraine for many years. Tetanus, as it is known, is determined by anaerobic bactery Clostridium tetani. Anaerobes can detect hard infectious diseases development with high lethality level in human being [2, 3, 4, 5]. Rural inhabitants are dominant among sick people on tetanus. Moreover, there is a tendency to morbidity cases increasing among cities inhabitants.

Season following represents one of distinguishing features for peaceful-timed tetanus. Seasons peak coincides to spring-summer time period. Literature data tell that maximal morbidity on tetanus are observed from May till October with its rising in May-August and significant decreasing in November. Seasonality rising long-duration depends significantly on climatic factors, their every-year peculiarities in a country which determine a period of population frequent contacts with a ground [1].

The aim of work was tetanus morbidity season fluctuation assessment among adult population in Ukraine regions which comprise administrative-territorial zones of responsibility territorial areas for sanitary-epidemiological departments of Ukraine Defense Ministry during a period from 1996 till 2005.

Materials and methods of investigation. We perform tetanus season morbidity analysis among adult population in regions which comprise administrative-territorial zones of responsibility territorial areas for sanitary-epidemiological departments of Ukraine Defense Ministry as well as in throughout Ukraine in every quarter.

The investigation results and their discussion. Morbidity maximal level is observed in Ukraine in May-July while rising level takes place beginning from March-April and remains at high level up to September end (table 1).

Table 1
Tetanus morbidity monthed distribution among adult population in Ukraine from 1996 till
2005

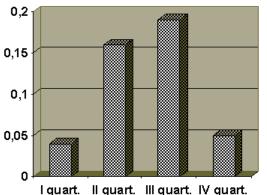
|                                  |       |       |      |      |      | 2005  |       |       |      |      |       |       |       |
|----------------------------------|-------|-------|------|------|------|-------|-------|-------|------|------|-------|-------|-------|
|                                  | I     | II    | III  | IV   | V    | VI    | VII   | VIII  | IX   | Х    | ΧI    | XII   |       |
| Month                            |       |       |      |      |      |       |       |       |      |      |       |       | Total |
| Morbidi<br>ty on<br>tetanus      | 7     | 6     | 10   | 15   | 35   | 29    | 37    | 38    | 20   | 10   | 8     | 8     | 223   |
| Morbidi<br>ty on<br>tetanus in % | 3,14  | 2,69  | 4,48 | 6,72 | 15,7 | 13    | 16,59 | 17,04 | 8,96 | 4,48 | 3,58  | 3,58  | 100   |
| Morbidi<br>ty on<br>tetanus on   | 0,014 | 0,012 | 0,02 | 0,03 | 0,07 | 0,058 | 0,074 | 0,076 | 0,04 | 0,02 | 0,016 | 0,016 |       |

Results received by us are in coincidence with other investigators data. Seasonality coinciding to arm year period is explained by maximal population contact with ground. Ground represents one of main transduction factors for this disease causative agent independently on contact form (everyday trauma, agricultural activity in part). Accounted period was not characterized by significant changes in tetanus morbidity monthed distribution and this was not against other with authors data. As statistic process showed (table 1), maximal rising morbidity during May-August (the I-st and III-rd quarter) comprised 212,8% from diseases all group while this percentage comprised 20,4% in a period of significant lowering (the I-st and IV-th quarter).

Thus, tetanus morbidity seasonality is influenced by definite regularities. They are remained in force even at morbidity level significant lowering.

Tetanus seasonality analyze through Ukraine regions has been performed separately as well as in its combining by territorial principle on comprise administrative-territorial zones of responsibility territorial areas for sanitary-epidemiological departments of Ukraine Defense Ministry.

Morbidity maximal rising in July is observed in Ukraine biggest regions amount (fig.1).



₩ Totally in Ukraine of 100 thousands people

Fig.1. Tetanus seasonality in Ukraine in 1996-2005 on 100 thousands.

It is necessary to mention that Ukraine definite regions (Chernovtsy, Vinnitsa, Nikolaev, Zaporozhie) are characterized by morbidity stable level during biggest year period and moreover this level is independent on season influence. At the same time, Kharkov, Kiev, Khmelnitsky,

Kirovograd, Kherson regions have tetanus rising morbidity in spring. Sumy, Volyn and Zhitomir regions have morbidity that is not characteristic for tetanus – morbidity increasing in the I-st quarter, decreasing – in the II-nd and next rising in the III-rd quarter. Poltava and Kirovograd regions have morbidity enforcement in the II-nd and IV-th quarters with this index lowering in the III-rd quarter.

Tetanus seasonality through Ukraine for 1996-2005

Table 2

| Nº   | Region                                      | Tetanus cases quantity every quarter |                  |                   |                  |  |  |  |  |
|--|---|--------------------------------------|------------------|-------------------|------------------|--|--|--|--|
|  | l tog.o                                     | The I-st quart.                      | The II-nd quart. | The III-rd quart. | The IV-th quart. |  |  |  |  |
| 1  | 2   | 3                                    | 4                | 5                 | 6                |  |  |  |  |
| 1  | Chernigov                                   | 1                                    | 2                | 4                 | 2                |  |  |  |  |
| 2  | Sumy  | 2                                    | 1                | 5                 | -                |  |  |  |  |
| 3  | Kharkov                                     | -                                    | 3                | 1                 | -                |  |  |  |  |
| 4  | Poltava                                     | -                                    | 6                | 4                 | 5                |  |  |  |  |
| 5  | Luhansk                                     | -                                    | 1                | 5                 | -                |  |  |  |  |
| 6  | Donetsk                                     | -                                    | 1                | 2                 | -                |  |  |  |  |
| 7  | Rovno                                       | 1                                    | 1                | 2                 | -                |  |  |  |  |
| 8  | Lvov  | 1                                    | 7                | 8                 | 1                |  |  |  |  |
| 9  | Ternopol                                    | -                                    | 6                | 7                 | 1                |  |  |  |  |
| 10   | Volyn                                       | 1                                    | -                | 2                 | -                |  |  |  |  |
| 11   | Zakarpatie                                  | -                                    | -                | 1                 | -                |  |  |  |  |
| 12   | Ivano-Frankovsk                             | -                                    | 1                | 2                 | -                |  |  |  |  |
| 13   | Chernovtsy                                  | 2                                    | 2                | 2                 | -                |  |  |  |  |
| 14   | Kiev  | -                                    | 3                | 1                 | 1                |  |  |  |  |
| 15   | Zhitomir                                    | 4                                    | 5                | 2                 | 1                |  |  |  |  |
| 16   | Vinnitsa                                    | 1                                    | 3                | 3                 | 3                |  |  |  |  |
| 17   | Khmelnitskiy                                | 2                                    | 8                | 5                 | 3                |  |  |  |  |
| 18   | Cherkassy                                   | 3                                    | 3                | 9                 | -                |  |  |  |  |
| 19   | Crimea                                      | 2                                    | 4                | 6                 | -                |  |  |  |  |
| 20   | Odessa                                      | 1                                    | 1                | 2                 | -                |  |  |  |  |
| 21   | Nikolaev                                    | 1                                    | 1                | 1                 | -                |  |  |  |  |
| 22   | Kirovograd                                  | -                                    | 5                | 2                 | 3                |  |  |  |  |
| 23   | Dnepropetrovsk                              | -                                    | 8                | 14                | 4                |  |  |  |  |
| 24   | Zaporozhie                                  | 1                                    | -                | -                 | -                |  |  |  |  |
| 25   | Kherson                                     | -                                    | 7                | 5                 | 2                |  |  |  |  |
| Totally through Ukraine -in absolute units |   | 23                                   | 79               | 95                | 26               |  |  |  |  |
|  | in percentages %                            | 10,3                                 | 35,4             | 42,6              | 11,6             |  |  |  |  |
| Avera                                      | ige indexes in absolute                     | 0,9                                  | 3,2              | 3,8               | 1,04             |  |  |  |  |
|  | numerals<br>- in %                          | 10,1                                 | 35,9             | 42,7              | 11,7             |  |  |  |  |
|  | ally in Ukraine on 100 usands of population | 0,04                                 | 0,16             | 0,19              | 0,05             |  |  |  |  |

So, Kiev and Chernigov regions (responsibility zone of the 10<sup>th</sup> regional sanitary-epidemiological department, Kiev) have such characteristics – morbidity average indexes on tetanus for the I-st and II-nd quarters were absent and only morbidity average levels insignificant dominance took part in Chernigov region in the III-rd-IV-th quarters. Significantly high seasonality on the background of general high morbidity level was characteristic for Odessa, Kherson, Nikolaev, Kirovograd, Dnepropetrovsk and Zaporozhie regions which are in administrative-territorial zone of responsibility number 27 of regional sanitary-epidemiological department (Odessa). Kirovograd, Dnepropetrovsk and Kherson regions (see table 2) were characterized by following: there were season morbidity significant increasing there in spring and summer months that dominated over morbidity seasonal enforcement through Ukraine as a whole. Such a morbidity increasing was observed in May-June in Kherson and Kirovograd regions while in August-September in Dnepropetrovsk region. Seasonable morbidity on tetanus for Odessa, Nikolaev and Zaporozhie regions was not more than average indexes in Ukraine.

Tetanus morbidity distinct seasonality in spring-summer is observed in Western Ukraine (responsibility administrative-territorial zone N.28, Lvov) with high indexes in Lvov and Ternopol regions that exceed average indexes through Ukraine. Ukraine central regions – Vinnitsa, Zhitomir, Cherkassy, Khmelnitsky – are in the 740<sup>th</sup> regional sanitary-epidemiological department (Vinnitsa

town). Tetanus morbidity level exceeds average data through Ukraine in Zhytomir and Khmelnitsky regions in the III-rd quarters (spring) as well as in Cherkassy region in the III-rd quarter (summer period). Ukraine Eastern region is in responsibility administrative-territorial zone N.108 (Kharkov city). Summer morbidity rising is a characteristic of Sumy, Luhansk and Donetsk regions. Moreover, these indexes in 2 first regions exceed average indexes in Ukraine in the III-rd quarter. Poltava region is separated significantly from this group because it has tetanus morbidity significant risings are observed during all spring-autumn year period and exceed morbidity average indexes through Ukraine. Autonomic Republic Crimea that belongs to responsibility administrative-territorial zone N.1030 (Sevastopol city) has tetanus morbidity level that exceeds average level through Ukraine in spring-summer. To our point of view, it deals with animal husbandry especially the horse one as well as tourism in a given region.

Tetanus morbidity has distinctly expressed seasonality – spring-summer – with gradual

Tetanus morbidity has distinctly expressed seasonality – spring-summer – with gradual decreasing in autumn in Ukraine regions biggest amount.

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#### ЗАХВОРЮВАНІСТЬ НА ПРАВЕЦЬ В УКРАЇНІ Фазелі Н.М.К., Ткаченко О.В., Махмуді А., Кожокару А.А., Моргун С.О.

Як показали результати проведених досліджень, захворюваність на правець володіє ярко вираженою весняно-літньою сезонністю з поступовим зниженням у більшості регіонів Україні в осінній період.

**Ключові слова:** правець, захворюваність, сезонність.

#### ЗАБОЛЕВАЕМОСТЬ СТОЛБНЯКОМ В УКРАИНЕ

#### Фазели Н.М.К., Ткаченко Е.В., Махмуди А., Кожокару А.А., Моргун С.А.

Как показали результаты проведенных исследований, заболеваемость столбняком имеет ярко выраженную весенне-летнюю сезонность с постепенным снижением в большинстве регионов Украины в осенний период.

**Ключевые слова:** столбняк, заболеваемость, сезонность.

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#### ОСОБЕННОСТИ ОККЛЮЗИОННОЙ КОРРЕКЦИИ ПО МЕТОДУ КЛЭЙТОНА ПОСЛЕ ОРТОДОНТИЧЕСКОГО ЛЕЧЕНИЯ

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На данный момент одной из наиболее актуальных проблем в современной стоматологии является проблема защиты окклюзионных взаимоотношений после проведенного ортодонтического лечения. Эта проблема широко освещена в зарубежной литературе [1-9], однако в этой концепции остается множество неосвещенных моментов.

Многие авторы [10-15] рассматривают характерную для 1 типа по Энглю схему окклюзионных контактов как ключевой фактор в формировании вторичных деформаций во фронтальной группе зубов. Это подтверждает острую необходимость применения методов защиты окклюзионных взаимоотношений [16] на поздних этапах ортодонтического лечения. Окклюзионная коррекция направлена на уравновешивание существующих зубных контактов