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ISSN: 2613-5817; E-ISSN: 2613 – 5825.
©Publisher: NGO Azerbaijan International Diaspora Center in Georgia.
Head and founder of organization: Namig Isayev. Academic Doctor in Business Administration.
Registered address: Village Takalo, 0165 Georgia. Marneuli municipality.
Typography: NGO Azerbaijan International Diaspora Center in Georgia. Southern Caucasus Scientific Journals.

©Publisher: NGO International Research, Education & Training Center.
Deputy and founder of organization: Seyfulla Isayev. Azerbaijan Marine Academy.
Typography: NGO International Research, Education & Training Center. The Baltic Scientific Journals.
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Website: http://sc-media.org/

Representation of Azerbaijan International Diaspora Center in Georgia registered by Public register of Georgia, on 28/05/2013,

International Research, Education & Training Center. R/C 80550594. Effective Data from Non-profit Associations and Foundations Register as at 21.05.2018

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THE EFFECT OF THE MINERAL AND ORGANIC-MINERAL FERTILIZER BASED ON THE NUMBER OF DIFFERENT VEGETATIVE IRRIGATIONS ON THE LENGTH OF THE INFLAMMATION PLANT WITH MIXED PEA AND SORGHO

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ABSTRACT

It is important for the plants to grow at the proper level with the nutritional elements in the first place. The phenological observations made in the grass-grass soils in the Agjabadi region show that the varieties of mineral and organic mineral fertilizers on the basis of different irrigation numbers have been relatively taller than the peach vegetation of the chickpea seedlings with sorghum grown in lump.

Keywords: mixed sprout, inflammation, fertilizer, soil, plant, irrigation

Plants should be provided optimally with nutrients for normal growth and development. In this regard, the role of mineral and organic fertilizers is high, and their use in agro technical regulations should be widely used.

Food items have a great role in the growth and development of plants. Depending on the biology of plants, developmental stages, the demand for foodstuffs varies. Failure to comply with one of the nutrients or to not be able to absorb the plants in the soil results in the loss of plants or their total destruction. Growth intensity and direction in a specific direction is the key condition for the formation and growth of the product. To maintain this balance, it is important to study the biological characteristics of plants, including those contained in the soil and plants, to ensure that plants are in need of nutritional elements.

Plants usually use spare nutrients contained in the first phases of their development. At this time, the growth of organic matter is very rare. In subsequent periods, the demand for plant nutrients is rapidly increasing, as the ash content and nitrogen are maximized when its size and mass reach the highest level.

Organic and mineral nitrogen fertilizers, along with increasing nitrogen and ash content in the soil, greatly enhance soil mineralization. Organic fertilizers are not only organic matter that regulates the activity of microorganisms, but also with various micro floras, fertilizer and compost which accelerate the decomposition of organic matter in the soil. Studies show that mineral fertilizers increase the intensity of biological processes in the soil because the soil is the source of nutrients with microorganisms. Nitrogen metabolism occurs throughout the entire life of the plant, but the nature and speed of this process are not equal in different phases of growth and development.

Long-term research has shown that when mixed sowing is poorly maintained with nitrogen, the increase in cereals is delayed and the demand for potassium decreases. Pulsed plants provide themselves with nitrogen as a result of the symbiotic activity of fertilized bacteria and, in contrast to cereals, use potassium and are intensively developed. In the case of potassium deficiency in mixed crops, the provision of nitrogen fertilizers negatively affects the development of pulsed components. [1].

The lack of proper quantities of soils in the soil has a significant impact on physical-chemical, biological processes in soil, soil fertility, the size and development of the plant, productivity, plant nutrition, and other issues. It should be noted that the growth process of plants is closely related to their provision with water. Thus, the plant requires water without interruption in the growth process. Water is the most important environment for the whole plant to continue its biological and chemical life. As a result of intermittent evaporation of the water, the functional organs of the plant are cooled, they do not burn the day and the growth process continues.

The intensity of the biological, chemical, physical and chemical processes occurring in the soil, the movement of the substance throughout the soil, the water-air, food and heat regimes of the soil, its physical-mechanical properties, ie the
important indicators of soil fertility, depend on the amount of water in the soil. Thus, irrigation water directly affects the development and longitudinal growth of the plant. Plant always develops normally whenever there is enough water in the soil. Studies have shown that as the leguminous plants grow and develop, the activity of the bubble bacteria is gradually increasing and reaching the maximum until the flowering period. By the end of the vegetation, the amount and activity of bacteria in the tubes decreases, and the bacteria are again mixed with soil. This also plays a major role in increasing soil fertility.

Nitrogen fertilizers to the soil also enrich the soil with nitrogen, making the hard-absorbed phosphorites an easy-to-use plant-derived form. When nitrogen is not present, the nitrogen content in the plant decreases and the normal development of the plant is disrupted. Nitrogen forms the basis of protoplasm, including protein, chlorophyll, amino acids, enzymes, etc. When the nitrogen is missing in the plant, the color of the leaves becomes light green and they are poorly developed. If nitrogen does not reach soil, growth and development of sorghum are delayed, productivity is significantly lower. [3].

Leguminous plants, along with nitrogen enrichment, improve the soil's structure and its water-physical properties. Many researchers have shown that the norms of nitrogen fertilizers have a direct impact on the growth of cereals in mixed crops, but weaken legumes. Providing corn in Kosovo with nitrogen and phosphorus fertilizer, while growing plants grow and develop the amount of protein in the product grows. [4].

Fertilizer norms are one of the key conditions for improving soil fertility so as to return the irrigated lands to the turf. Organic fertilizers, while enriching soil with nutrients necessary for nutrition of plants, improve its water-physical properties, provide soil-beneficial microorganisms, accelerate the process of mineralization and plant entry, prevent loss of nutrients in the soil, enrich soil with microelements, soil fertility is restored and the cultivation of agricultural crops, as a result, increases the probability of normal plant growth. [2].

It is important for the plants to grow at the proper level with the nutritional elements in the first place. The phenological observations made in the grass-grass soils in the Ajababadi region show that the varieties of mineral and organic mineral fertilizers on the basis of different irrigation numbers have been relatively taller than the peach vegetation of the chickpea seedlings with sorghum grown in lump.

Table: The effect of the mineral and organic-mineral fertilizer on the basis of the number of different vegetative irrigations on the length of the inflammation plant with mixed pea and sorghum

<table>
<thead>
<tr>
<th>Ordinal numeral</th>
<th>Variants</th>
<th>The length of grain in the milk-waxing maturation phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>04.10. 2017</td>
</tr>
<tr>
<td>I</td>
<td>Without fertilizer, control</td>
<td>156/71</td>
</tr>
<tr>
<td>II</td>
<td>N_0P_0K_0</td>
<td>162/76</td>
</tr>
<tr>
<td>III</td>
<td>N_0P_0K_0</td>
<td>179/84</td>
</tr>
<tr>
<td>IV</td>
<td>N_0P_150K_0</td>
<td>207/92</td>
</tr>
<tr>
<td>V</td>
<td>N_0P_150K_150</td>
<td>232/99</td>
</tr>
<tr>
<td>VI</td>
<td>manure 10 t/hect + P_0</td>
<td>164/78</td>
</tr>
<tr>
<td>VII</td>
<td>manure 10 t/hect + N_0P_0K_0</td>
<td>186/89</td>
</tr>
<tr>
<td>VIII</td>
<td>manure 10 t/hect + N_0P_0K_0</td>
<td>224/97</td>
</tr>
<tr>
<td>IX</td>
<td>manure 10 t/hect + N_0P_0K_0</td>
<td>243/103</td>
</tr>
</tbody>
</table>

In the background of 5 times irrigation

| I               | Without fertilizer, control | 168/75 | 174/79 |
| II              | N_0P_0K_0 | 172/78 | 179/84 |
| III             | N_0P_0K_0 | 181/87 | 192/89 |
| IV              | N_0P_120K_0 | 211/95 | 220/98 |
| V               | N_0P_150K_150 | 238/102 | 249/112 |
| VI              | manure 10 t/hect + P_0 | 171/80 | 182/84 |
| VII             | manure 10 t/hect + N_0P_0K_0 | 187/89 | 197/95 |
| VIII            | manure 10 t/hect + N_0P_0K_0 | 228/99 | 239/101 |
| IX              | manure 10 t/hect + N_0P_0K_0 | 254/105 | 259/110 |

As shown in the table, in the milk-waxing phase of the sorghum, the fertilized control variant of the plant is 169 cm in height, the height of the plant is 77 cm, while the combined use of mineral and organic mineral fertilizers results in 175-254 cm in sorghum and in the pea plant 81-108.
Similar mixed slaughtering occurred in the irrigation area 5 times. Thus, 5 times the irrigated soils in the sorghum plant in the milk-waxing stage without fertilizer control variant 174 cm height of the plant, the height of the chickpea plant is 79 cm, combined with application of mineral and organic mineral fertilizers significantly change the length of plants in sorghum 179-259 cm, 84-110 cm in the plant. The highest biometric indicator was obtained when the manure was applied at 10t/ha + N75P125K90.

Apparently, optimum fertilizer and irrigation norms have a more efficient effect on the length of the mixed squash and chickpea, which in turn leads to an increase in green mass.

REFERENCES

BACTERIOLOGY AND ANTIBIOTIC SUSCEPTIBILITY IN ADULTS WITH PERFORATED APPENDICITIS

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ABSTRACT

Acute appendicitis represents one of the most frequent abdominal surgical emergencies. Ready diagnosis of this pathology significantly reduces morbidity and mortality, which can be significantly higher in cases with complications. Appendectomy is one of the commoner operations with a lifetime risk as high as 12% or 23% in males or females, respectively. Since the 1940s intra-operative intra-peritoneal swabs have commonly been taken from the appendix site, the spectrum of infecting organisms and their antibiotic sensitivity may be gauged from the culture results.

We retrospectively reviewed bacterial etiology and antibiotic susceptibility in patients diagnosed with perforated appendicitis who were admitted in TSMU the First University Clinic #1 Surgery department between January 2017- and December 2017. In total, 64 culture-positive perforated appendicitis cases were analyzed. Escherichia coli was the most common pathogen (40/64, 63.5%), followed by Enterobacter cloacae (8/64 ,12%) Streptococcus species (6/64, 9.2%), Enterococcus spp (10/64 15,3%). The susceptibility of E. coli to ampicillin/sulbactam, piperacillin/tazobactam, ceftazidime, cefepime, amikacin, gentamicin, and imipenem was 100%, 100%, 98.0%, 99.2%, 98.9%, 81.8%, and 100%, respectively. The overall susceptibility of E. coli to fluoroquinolones (ciprofloxacin, levofloxacin and moxifloxacin) was 85.0%.

Keywords: appendix, bacteria, perforation, treatment.

INTRODUCTION

Appendectomy is the commonest intestinal operation performed in hospitals. In addition, there is also a high incidence of intra-abdominal sepsis. Post-operative sepsis after appendectomy depends on several factors (1,2). Besides the presence or absence of perforation, factors like the age of the patient, delay in diagnosis, difficulty of the operation, the skill of the surgeon and the use of appropriate antibiotics may all influence the development of sepsis. The success of chemotherapy depends on the sensitivity of the likely contaminating bacteria towards antibiotics (3). Very often it is necessary to start chemotherapy before the availability of bacterial culture and sensitivity reports. Unfortunately, there has been only a few studies on the bacteriology of appendicitis and these have all been done overseas. Bacterial infections are a factor for morbidity in patients with perforated appendicitis (PA). The spreading of multidrug-resistant (MDR) bacteria is a significant problem in surgery, and the most relevant MDR pathogens are summarized as Enterobacteriaceae, Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa, and Enterococci (ESKAPE) bacteria. Data regarding the species and distribution of bacteria in PA are available, but information about the resistances and their relevance is deficient (4,5,6).

Perforation may result in free peritonitis, the formation of an abscess or a phlegmon. Antibiotic treatment may be important in medical or surgical management of perforation. Peritoneal lavage may be of debatable efficacy. Surgical drainage is employed in addition to anti-microbial therapy in those unlucky enough to suffer a large abscess (>1–2 cm) (7,8). Medical therapy with antibiotics is important both prophylactically and as indicated in a septic patient or one with evidence of perforation; Antibiotics considered for patients with appendicitis must offer full aerobic and anaerobic coverage (9). The duration of the administration is closely related to the stage of appendicitis at the time of the diagnosis, considering either intraoperative findings or postoperative evolution. According to several studies, antibiotic
prophylaxis should be administered before every appendectomy. When the patient becomes afebrile and the white blood cell (WBC) count normalizes, antibiotic treatment may be stopped. Results of peritoneal swab culture can crucially guide antibiotic choice (10,11).

The aim of this study was to investigate the microbiology of perforated peritonites. The purpose of this survey is to determine the bacteriology and treatment associated with cases of perforated appendix in patients who were admitted to TSMU the First University Clinic #1 surgical department. All patients were found to have perforated appendix during operation. Free pus was found in the peritoneal cavities of all patients.

MATERIAL AND METHODS

We retrospectively reviewed the records of 76 adult patients who were admitted to TSMU the First University Clinic #1 surgical department between January 2017 to December 2017.54 males and 12 females with ages ranging from 18 years to 64 years. All patients were found to have perforated appendix during operation. Free pus was found in the peritoneal cavities of all patients. Specimens were obtained by swabbing the suppurative peritoneal fluid or periappendiceal abscess. In some cases, specimens were obtained by swabbing the lumen of appendix or by retrieving the suppurative peritoneal fluid via syringe aspiration. The volume of pus ranged from 5 ml to 10 ml. A pus swab was taken during operation and by using optimum sampling, transport, and culture techniques sent to the bacteriology laboratory. The swab was cultured on to blood agar, Endo agar, Sabouraud dextrose agar and Schaedler agar with 0.5% sheep blood. The blood agar plate, Endo agar plate and Sabouraud plate were incubated aerobically while the Schaedler blood agar plate was incubated in an anaerobic bag (biomerieux). The plates were examined after 24 hours incubation at 37°C and again after a further 24-hour incubation period. All bacteria isolated were identified using api system (biomerieux) and susceptibility testing was done by a Kirby-Bauer disc diffusion methods. Susceptibility testing results were interpreted according to the European Committee on Antimicrobial Susceptibility Testing guidelines published in 2017 (EUCAST 2017).

RESULTS

No bacteria was isolated from the specimens of 12 patients (15.8%). Of the 64 specimens (84.2%) which gave positive cultures, pure cultures were obtained from 38 while mixed cultures were obtained from the other 26. The culture results are summarized in Table I. Escherichia coli was the most common pathogen (40/64, 63.5%), followed by Enterococcus spp (10/64, 15.2%), Enterobacter cloacae (8/64, 12%) Streptococcus species (4/64, 6.2%), Pseudomonas aeruginosa (2/64, 3.1%). Susceptibility test for gramnegative organisms was done on following antibiotics: Amoxicillin/Clavulanic acid, Ampicilline/sulbactam, Piperacilline/Tazobactam, Imipenem, Meropenem, Ceftriaxone, Cefepime, Amikacine, Gentamicin, Ciprofloxacine, Aztreonam, Colistin.

<table>
<thead>
<tr>
<th>4-7 Microorganisms</th>
<th>Number of patients(out of 64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia coli</td>
<td>40</td>
</tr>
<tr>
<td>Enterococcus faecalis</td>
<td>10</td>
</tr>
<tr>
<td>Enterobacter cloacae</td>
<td>8</td>
</tr>
<tr>
<td>Streptococcus spp</td>
<td>4</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa</td>
<td>2</td>
</tr>
</tbody>
</table>

CONCLUSION

E. coli was the most common pathogen identified in this study (63.5% of all isolates). Similarly, Enterococcus (16.2%) and Streptococcus (6.2%) species were the most frequently isolated gram-positive organisms. Gramnegative bacillus was isolated from nearly one half of all patients. Although E. coli showed a high susceptibility rate of 97% to third and fourth generation cephalosporins that are most commonly used for empirical antibiotic treatment. Although third-generation cephalosporins might be a better treatment choice because that Streptococcus species showed high susceptibility to ceftriaxone.
Most gram-negative pathogens had susceptibility rates of 90% or more to aminoglycosides, imipenem and piperacillin-tazobactam, except for Pseudomonas, which generally had susceptibility rates to these agents of between 80% and 90%. The rates of susceptibility to fluoroquinolones, however, were alarming—less than 20% for Pseudomonas.

In conclusion routine culture testing might be useful to identify changes in susceptibility and to select appropriate antibiotics.

REFERENCES

DIE WORTSTELLUNG IM SATZ

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ABSRTAKTE
In diesem Artikel wird die im deutschen Sprachsatz verwendete Wortfolge in allen Sprachbereichen in einfachen und komplexen Sätzen zusammengefasst und in anderen Sprachen mit den meisten englischen Wörtern dargestellt. Die Schwierigkeiten, die bei der Befragung der Aussprache der Sätze auftraten, die Schwierigkeiten, auf die man in der Rede gestoßen ist, sind gelöst worden, und die Vorteile der Kenntnis der genauen Wortfolge sowohl in geschriebener als auch in verbaler Sprache sind in dem Artikel gezeigt.

Schlüsselwörter: Wortstellung, Satzglieder, Betonung, Rede, Prädikat, Aussagesatz.

ABSTRACT
This article is about correct order of the words in the sentence which is one the most important factor in linguistics while building simple or compound sentences. In this article, the word order in German is compared with English. Using the parts of sentence correctly in the speech is also actual topic of this article in which we touch the importance of using main elements of sentence. And also we touch some difficulties which learners can meet while they are building “Interrogative sentence”.

Keywords: Word order in the sentence, the parts of sentence, stress, subject, predicate.

REZÜME

Açar sözlər: Söz sırası, cümle üzvləri, vurğu, nitq, xəbər, mübtəda

Man äussert und versteht einen Satz immer als eine Gesamtheit, als inhaltliche Einheit, aber man kann ja seine Bestandteile nicht gleichzeitig sagen oder schreiben, sondern muss sie nacheinander anordnen. Die Bedeutung eines Satzes ergibt sich also aus seinen einzelnen Teilen und ihrer Anordnung.

Der üblichste Begriff für die Anordnung der Satzteile ist “Wortstellung”. Dabei muss man sich aber bewusst sein, dass es hier nicht um die Stellung einzelner Wörter geht, sondern um die Stellung von Satzeinheiten, also um “Satzgliedstellung” und um die Stellung des Prädikats. Allerdings spielt “Wortstellung” auch in anderen Bereichen eine Rolle: beim Aufbau von Wortgruppen und beim Aufbau eines Satzgefüges aus Haupt- und Nebensatz.

Im Unterschied zu anderen Sprachen, etwa dem Englischen, hat das Deutsche eine relativ freie Wortstellung. Der meisten Satzglieder können an verschiedenen Stellen im Satz stehen; vgl. z. B. die Stellung der Zeitangabe morgen in folgenden Sätzen:

Morgen bringe ich das Auto in die in die Werstatt.
Ich bringe morgen das Auto in die in die Werstatt.
Ich bringe das Auto morgen in die in die Werstatt.

In bestimmten Fällen hat die Wortstellung die Aufgabe, die Art eines Satzglieds deutlich zu machen, z. B. in einem Satz wie
Endlich fanden _die Kinder_.

Hier ist an der Form der Ergänzungen nicht zu erkennen, welches die Akkusativergänzung ist, wer also wen fand – _sie die Kinder_ oder umgekehrt _die Kinder sie_. Solche eigentlich mehrdeutigen Sätze versteht man aber automatisch so, dass die erste Ergänzung das Subjekt ist, weil allgemein die Regel gilt, dass das Subjekt vor der Akkusativergänzung steht. Wenn man die andere Satzbedeutung ausdrücken wollte, würde man entsprechend sagen:

Endlich fanden die Kinder sie.

Wirklich mehrdeutige Fälle dieser Art sind aber sehr selten; in der Regel wird nicht erst durch die Wortstellung, sondern schon aus dem Zusammenhang deutlich was gemeint ist.

Die Wortstellung kann also weitgehend andere Aufgaben beim Bau des Satzes übernehmen. Der Sprecher kann mit ihrer Hilfe den Satz nach seinen Absichten und Zwecken organisieren, indem er den einzelnen Teilen ein unterschiedliches Gewicht gibt. Gewöhnlich baut man eine Ausserung so auf, dass man vom Bekannten zum Neuen, zur eigentlichen Aussage fortschreitet. Bei einer solchen "normalen" Wortstellung liegt also der Schwerpunkt der Ausserung am Satzende:

Die 50-Jahr-Feier unseres Vereins erhielt ihren sportlichen Höhepunkt _mit dem Spiegel gegen die deutsche Nationalmannschaft_.

Man kann die Hauptinformation aber auch besonders hervorheben, indem man sie an den Anfang des Satzes stellt:

_Mit dem Spiegel gegen die deutsche Nationalmannschaft_ erhielt Die 50-Jahr-Feier unseres Vereins ihren sportlichen Höhepunkt.

So wird die Aufmerksamkeit des Hörers bzw. Lesers sofort auf den Wichtigsten, interessantesten Punkt der Ausserung gelenkt.

Die Wortstellung kann also "Akzente setzen" – und das ist sogar wörtlich zu verstehen: Sie leistet in der geschriebenen Sprache das, was in der gesprochenen Sprache durch den Akzent, die Betonung, ausgedrückt wird. In mündliche Rede kann man fast jeden Satzteil durch entsprechende Betonung hervorheben, in schriftlichen Ausserungen muss man zur Hervorhebung in der Regel eine andere Wortstellung wählen. Wenn man z.B. betonen möchte, dass man das Auto seinem Freund geliehen hat, kann man mündlich mit normaler Wortstellung und Betonung auf dem Dativ sagen:

Ich habe meinem Freund das Auto geliehen.

Wenn man dasselbe schriftlich ausdrücken will muss man die Dativergänzung an eine Schwerpunktstelle im Satz stellen, also zum Ende hin oder an der Anfang:

Ich habe das Auto _meinem Freund_ geliehen.

_Meinem Freund_ habe ich das Auto geliehen.

Dass die Wortstellung im Deutschen relativ frei ist, bedeutet jedoch nicht, dass sie beliebig wäre. Es gibt vielmehr Gesetzmäßigkeiten, Regeln, für die Anordnung der Satzteile, und sie gelten in bestimmten Bereichen uneingeschränkt, d.h., es entsteht ein unkorrekt Satz, wenn sie nicht beachtet werden.

Sprecher, die Deutsche als Muttersprache sprechen, machen im Allgemeinen keine Fehler in der Wortstellung; Ausländern dagegen bereitende Stellungsregeln oft grosse Schwierigkeiten, da sie sich zum Teil erheblich von denen anderer Sprachen unterscheiden. Die wichtigsten Besonderheiten der deutschen Wortstellung haben mit der Stellung des Prädikats zu tun:

Das Prädikat tritt in bestimmten Sätzen auseinander:

_Wir können_ morgen ins kino _gehen_.

Das Prädikat hat in jedem Satz eine ferste Stelle; es kann innerhalb dieses Satzes nicht verschoben werden. Es gibt aber verschiedene Möglichkeiten für diese feste Stelle. Ein einteliger Prädikat kann die erste, die zweite oder die letzte Stelle im Satz einnehmen.
**Erscheint** er heute wieder nicht zur Arbeit?

**Er erscheint** heute wieder nicht zur Arbeit.

Ein mehrteiliges Prädikat kann sich aufspalten, sodass die Teile getrennt voneinander im Satz stehen. Dabei ist aber nur die Personalform tritt an die letzte Stelle:

-Ist er heute wieder nicht zur Arbeit erschienen?

Er ist heute wieder nicht zur Arbeit erschienen.

Nur in Nebensätzen steht das gesamte Prädikat am Ende des Satzes, die Personalform tritt an die letzte Stelle:

....üeil er heute wieder nicht zur Arbeit erschienen ist.

Man nennt die auseinander tretenden Prädikatsteile die “Satzklammer”, üeil sie den übrigen Satz wie eine Klammer umschließen:

-Ist er heute wieder nicht zur Arbeit **erschienen**?


-Weil er heute wieder nicht zur Arbeit **erschienen ist**.

Auch die Konjunktion und das Prädikat gehören eng zusammen, sie bedingen einander: Eine unterordnende Konjunktion bewirkt immer, dass das Prädikat am Ende steht, und umgekehrt steht das Prädikat nur dann am Ende, wenn eine unterordnende Konjunktion vorkommt.

Die Satzklammer umschliesst nicht immer den gesamten übrigen Satz. In Aussage- und bestimmten Fragesätzen steht ein Satzglied vor der Klammer:

-Heute ist er wieder nicht zur Arbeit **erschienen**.

-Warum ist er heute wieder nicht zur Arbeit **erschienen**?

Unter bestimmten Bedingungen kann auch ein Satzglied hinter der Klammer stehen; man spricht dann von “Ausklammerung”:

Er ist wieder nicht zur Arbeit **erschienen heute**.

So wird der Satz durch die Satzklammer in drei Abschnitte gegliedert, auf die sich die Satzglieder verteilen. Man nennt diese Satzabschnitte auch “Felder” und bezeichnet den Abschnitt vor der Klammer als “Vorfeld”, den Abschnitt zwischen den Klammerteilen als “Mittefeld” und den Abschnitt hinter der Klammer als “Nachfeld”:

<table>
<thead>
<tr>
<th>Vorfeld</th>
<th>Linke Satzklammer</th>
<th>Mittelfeld</th>
<th>Rechte Satzklammer</th>
<th>Nachfeld</th>
</tr>
</thead>
</table>

Ein Vorfeld, also einen Satzabschnitt vor der Satzklammer, gibt es nur in bestimmten Hauptsätzen: in Aussagesätzen und einem Teil der Fragesätze. Im Vorfeld steht in der Regel nur ein Satzglied:

-Wegen Krankheit fällt der Unterricht diese Woche aus.
Der Unterricht fällt diese Woche wegen Krankheit aus.

Diese Woche fällt der Unterricht wegen Krankheit aus.

Vor dem Satzglied an der ersten Stelle können auch Wörter wie fast,besonders,auch,sogar,nur und nicht stehen; sie beziehen sich dann speziell auf dieses Satzglied:

Nicht diese Woche fällt der Unterricht aus, sondern nächste.

Fast jede Woche fallen Stunden aus.

Nahezu alle Satzglieder können das Vorfeld besetzen vgl.z.B.:


LITERATURLISTE

STYLISTIC CLASSIFICATION OF THE ENGLISH VOCABULARY

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ABSTRACT

The actual situation of the communication has evolved two varieties of language—*the spoken and the written*. The varying of the communication has caused the literary language to fall into a number of self-sufficient systems.

Of the two varieties of language, diachronically the spoken is primary and the written is secondary. Each of these varieties has developed its own features and qualities which in many ways may be regarded as opposed to each other.

The situation in which the spoken variety of language is used and in which it develops, can be described concisely as the presence of an interlocutor. The written variety, on the contrary, presupposes the absence of an interlocutor. The spoken language is maintained in the form of a dialogue, the written in the form of a monologue. The spoken language has a considerable advantage over the written, in that the human voice comes into play. This is a powerful means of modulating the utterance, as are all kinds of gestures, which, together with the intonation, give additional information.

**Keywords:** literary language, spoken language, written language, literary vocabulary, colloquial vocabulary.

INTRODUCTION

The bookish vocabulary, one of the notable properties of the written language, may, on the contrary, go beyond the grasping powers of even the most intelligent reader and may very frequently need interpretation. Literary language is a historical category. It exists as a variety of the national language. The literary is that elaborated form of the national language which obeys definite morphological, phonetic, syntactical, lexical, phraseological and stylistic norms recognized as standard and therefore acceptable in all kinds and types of discourse. It allows modifications but within the framework of the system of established norms. It casts out some of the forms of language which are considered to be beyond the established norm. The norm of usage is established by the language community at every given period in the development of the language. In this connection it will not come amiss to note that there are two conflicting tendencies in the process of establishing the norm:

1) Preservation of the already existing norm, sometimes with attempts to re-established old forms of the language;
2) Introduction of new norms not yet firmly established.

It is interesting to note that much of what was considered a violation of the norm in one period of the development of a language becomes acknowledged and is regarded as perfectly normal in another period. Many words and constructions
which were once considered illiterate have become literary. There is no hard and fast division between the literary and non-literary language. The English literary language was regulated and formalized during the 17 and 18th century. The literary language greatly influences the non-literary language. The non – literary language manifests itself in all aspects of the language: phonetic, morphological, lexical and syntactical. Literary English is also synonymous with the term standard English. The English literary language has had a long and peculiar history. Throughout the stages of its development there has been a struggle for progressive tendencies. On the one hand, aim at barring the language from the intrusion of contaminating elements, such as jargonisms, slang, vulgarisms and the like, and, on the other hand, at manifesting themselves in protest against the reactionary aspirations of some zealous scholars to preserve the English language in a fixed form. The English language, as is known, is the result of the integration of the tribal dialects of the Angles, Saxons and Jutes who occupied the British Isles 3rd – 5th centuries. Old English is a dead language, like Latin or classic Greek.

The English language, as is known, is the result of the integration of the tribal dialects of the Angles, Saxons and Jutes. The new English period, as it is called, is usually considered to date from the 15th century. This is the beginning of the English language known, spoken and written at the present time. In the 16th century literary English began markedly to flourish in all forms – drama, poetry and prose. To give a general idea of the factors influencing the development of literary English of 15th and 16th centuries, it will suffice to point out the following three:

1) A common interest in classical literature during the Renaissance and hence the application of classical grammar, spelling and rhetoric to the English language. Attempts were made by scholars to force the classical norms into the English language.

2) A desire to keep the language pure, to retain and revive old English words and as far as possible old English morphological and syntactical forms. This tendency has been called archaic purism. The influence of archaic purism led to an acute struggle against the intrusion of foreign words, particularly those of Latin and continental French origin, and as a consequence of this struggle an orientation towards the obsolescent forms of the language.

3) An orientation towards the living, developing and rapidly changing norms of the colloquial language. Free use was made of the inherent properties of the English language as they had materialized by this time, for example, free use of conversion, word-composition, derivation and semantic change. In the domain of syntax and word order too, there was already considerably freedom of usage.

Neutral, Common Literary and Common Colloquial Vocabulary

Neutral words, which form the bulk of the English Vocabulary, are used both in literary and colloquial language. They are the main source of synonymy and polysemy. It is the neutral stock of words that is so prolific in the production of new meanings. Unlike literary and colloquial words, neutral words lack special stylistic colouring.

Common literary words are chiefly used in writing and polished speech. It may seem difficult to distinguish a literary word from a colloquial word as no objective criteria of classification have been worked out. The opposition between literary, colloquial and neutral can become more apparent in pairs/ groups of synonyms.

As can be seen from the chart, the main distinction between the synonyms is stylistic.

Synonyms can differ in the emotional tension connoted in a word, in the sphere of application, or in the degree of quality denoted, etc. Colloquial words are always more emotionally coloured than literary ones. Neutral words lack emotiveness, nor do they have any distinctions in the sphere of usage.

Both literary and colloquial words have their upper and lower ranges. The lower range of literary words approaches the neutral layer and has a tendency to pass into that layer. The same can be said of the upper range of the colloquial layer. The boundaries between common colloquial and neutral, and between common literary and neutral are blurred, i.e. words from one stratum can penetrate into the other.

Still the extremes remain antagonistic and therefore are often used to bring about a collision of speech for special stylistic purposes. The difference in the stylistic aspect of words may colour the whole utterance.

The words in Juggins’s answer are on the border line between common literary and neutral, whereas the words and expressions used by Dora are obviously common colloquial, not bordering on neutral.

In the chart, common colloquial vocabulary is represented as overlapping into the Standard English vocabulary. It is considered to be part of the latter. It borders both on the neutral vocabulary and on the special colloquial vocabulary.
Types of lexical meaning

A number of stylistic devices are based on the peculiar use of lexical meanings. A word is a language sign that expresses a concept by its forms and meanings. By concept is meant an abstract or general idea of some phenomenon of objective reality including the subjective feelings and emotions of human beings. The forms of the word show its relation to the other words in a sentence. The meaning of a word is the means by which the concept is materialized. The word may have a number of meanings.

Three types of meaning can be distinguished: logical, emotive and nominal.

Logical meaning is the precise naming of a feature of the idea, phenomenon or object, the name by which we recognize the whole of the concept (direct meaning or referential meaning).

The potentiality of words can also be noted in regard to emotive meaning. Emotive meaning also materializes a concept in the word, but unlike logical meaning, emotive meaning has reference not directly to things or phenomena of objective reality, but to the feelings and emotions of the speaker towards these things or to his emotions as such.

And finally we come to nominal meaning. There are words which, while expressing concepts, indicate a particular object out of a class. These words are classified in grammars as proper nouns.

In accordance with the division of language into literary and colloquial, we may represent the whole of the word stock of the English language as being divided into three main layers: the literary layer, the neutral layer and the colloquial layer. The aspect of the literary layer is its markedly bookish character. It is this that makes the layer more or less stable, the aspect of the colloquial layer of words is its lively spoken character. It is this that makes it unstable, fleeting.

The aspect of the neutral layer is its universal character, that means it is unrestricted in its use. It can be employed in all styles of language and in all spheres of human activity.

The literary vocabulary consists of the following groups of words: 1. common literary; 2. terms and learned words; 3. poetic words; 4. archaic words; 5. barbarisms and foreign words; 6. literary coinages including nonce-words.

The colloquial vocabulary falls into the following groups: 1. common colloquial words; 2. slang; 3. jargonisms; 4. professional words; 5. dialectal words; 6. vulgar words; 7. colloquial coinages.

The common literary, neutral and common colloquial words are grouped under the term standard English vocabulary. Other groups in the literary layer are regarded as special literary vocabulary and those in the colloquial layer are regarded as special colloquial (non-literary) vocabulary.

Neutral words, which form the bulk of the English vocabulary, are used in both literary and colloquial language. Neutral words are the main source of synonymy and polysemy. It is the neutral stock of words that is so prolific in the production of new meanings. Unlike all other groups, the neutral group of words cannot be considered as having a special stylistic colouring, whereas both literary and colloquial words have a definite stylistic colouring.

Common literary words are chiefly used in writing and in polished speech. Literary units stand in opposition to colloquial units.

The following synonyms illustrate the relations that exist between the neutral, literary and colloquial words in the English language.

Barbarisms and Foreignisms

Barbarisms are words of foreign origin which have not entirely been assimilated into the English language. They bear the appearance of a borrowing and are felt as something alien to the native tongue. Nevertheless most of what were formerly foreign borrowings are now, from a purely stylistic position, not regarded as foreign. But still there are some words which retain their foreign appearance to a greater or lesser degree. These words, which are called barbarisms, are, like archaisms, also considered to be on the outskirts of the literary language.

Most of them have corresponding English synonyms; e.g. chic (=stylish); Weltanschauung (=world-view); en passant (= in passing); ad infinitum (= to infinity) and many other words and phrases. It is very important for purely stylistic purposes to distinguish between barbarisms and foreign words proper. Barbarisms are words which have already become facts of the English language. They are, part and parcel of the English word-
stock, though they remain on the outskirts of the literary vocabulary. Foreign words though used for certain stylistic purposes, do not belong to the EV. They are not registered in dictionaries, whereas barbarisms are. Foreign words are often italicized, barbarisms on the contrary, are not made conspicuous in the text.

CONCLUSION

From the Old English period up to the 15th century there had been chaos in English spelling. The Old English system, which was phonetic, had broken down because the language had changed. Then besides that, no writer knew exactly how to spell borrowed words – in the Latin, the French or the Norman – French way, or according to the rules which individual writes applied in their own way spelling words of French origin. 17th century literary English is characterized by a general tendency to refinement and regulation. The orientation towards classical models, strong enough in 16th century English, assumed a new function, that of refining, polishing and improving the literary language. This was, of course one of the trends leading to the final establishment of the norms of Literary English. 18th century concepts in the fields of philosophy and natural sciences had considerable influence on contemporary theoretical linguistic thought. The gap between the literary and colloquial English of the of the 18th century was widening. The restrictions forced on the written language are felt in the speech of the characters in the novels and plays of this period. Their speech is under the heavy influence of literary English and therefore it is erroneous to understand it as representing the norms of 18th century spoken English. The 19th century trends in literary English are best summarized in the following statement by McKnight: "The spirit of purism evidently alive in the early 19th century. The sense of classical perfection to be striven for survived from 18th century". The language must not only be made more regular, but it must be protected from the corrupting influences that were felt to be on all sides. Vulgarisms were to be avoided and new words, if they were to be tolerated, must conform not only to analogy but to be tolerated, must conform not only to analogy but to good taste. We must point out that functional styles of language have shaped themselves within the literary form of the English language. The division of the standard English language into two varieties, written and spoken, which was acknowledged as a natural coexistence, now goes alongside the problem of the "closed" system of styles of language. The classification of the vocabulary here suggested is for purely stylistic purposes. This is important for the course in as much as some SDs are based on the interplay of different stylistic aspects of words. In order to get more or less clear idea of the word-stock of any language, it must be presented as a system, the elements of which are interconnected, interrelated and yet independent. The word – stock may be represented as a definite system in which different aspects of words may be singled out as independent. A special branch of linguistic science – lexicology has done much to classify vocabulary.

The word-stock of the English language as being divided into three main layers: the literary lawyer, the neutral lawyer and the colloquial layer.

The literary vocabulary consists of the following groups of words: 1. Common literary, 2. Terms and learned words; 3. Poetic words; 4. Archaic words; 5. Barbarism and foreign words; 6. Literary coinages including nonce-words.


The common literary, neutral and common colloquial words are grouped under the term standard English vocabulary.

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MORPHOLOGICAL AND ANATOMICAL ANALYSIS OF THE GLYCYRRHIZA GLABRA L.

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ABSTRACT

Glycyrrhiza glabra in the low-lying semi-desert regions of Azerbaijan is very widespread and often forms thickets occupying large areas. At present, in connection with the development of new lands for technical and grain crops, their area has somewhat decreased.

Keywords: Glycyrrhiza glabra, fodder plant, chlorenchyma, parenchyma, sclerenchyma.

Glycyrrhiza glabra L. is a perennial herbaceous root-crop plant, 60-80 cm high. The root system is powerful, consisting of the main root, vertically extending deep into the soil for 2-7 m and more, and a network of lateral offspring that extend in all directions from the main one and give new above-ground shoots and new vertical roots. The roots in the fracture are bright yellow or lemon-yellow, outside are brownish-gray. Stems straight, strong, usually slightly branched, abd- mindedly short-furry. Stipules lanceolate-subulate, early shedding. Leaves are 5-20 cm long, with 7-19 leaves. Leaflets are elliptically-lanceolate or oblong-ovate, almost bare, from below usually sticky from resinous secretions and densely covered with acicular glands. Corolla pale purple, 8-10 mm long. Calyx 5-6 mm long, short-furry; Its teeth are equal in length to the tube or slightly longer. Beans are glabrous, oblong, straight or slightly curved, brown, leathery, non- opening or late-opening, with 3-6 seeds.

Glycyrrhiza glabra - is of great economic importance. The most ancient medicinal plant included in the pharmacopoeia of almost all European countries. For medicinal purposes, roots and rhizomes are used; they contain up to 15% of glycyrrhizin, which has a sweet taste. Rhizomes and roots contain up to 25% of extractive substances. In addition to glycyrrhizin, Glycyrrhiza glabra contains glucose (3%), sucrose (5%), about 3% asparagine, tar, starch and a yellow pigment that gives the root a yellowish color. Preparations from Glycyrrhiza glabra are used as enveloping and facilitating the separation of sputum, as a mild laxative and as a taste improving agent; is a part of various medicines. Powder from a dry root is a part of the laxative complex powder and in the composition of various cakes from cough. Glycyrrhiza glabra has a weak diuretic effect. The roots contain vitamin C, in ashes 14% potash [2].

Glycyrrhiza glabra is a fodder plant. On the content of nutrients, there are discrepancies, depending on the phase of development, the organ of the plant and the habitat. Thus, in the fruiting phase of the protein contains from 5.3% to 14.3%, fat - from 2.3% to 7.1%, fiber - from 19.8% to 39.3%, nitrogen-free extractives from 31, 9% to 55%. In the pasture camels and sheep poorly or satisfactorily eat Glycyrrhiza glabra before fruiting; cattle and horses almost do not eat it. Poor consumption of Glycyrrhiza glabra is explained by the presence of tannins in it.

Materials and methods of research

The material for the study is Glycyrrhiza glabra, a widely distributed species on the territory of Azerbaijan.

Samples for anatomical studies were taken at various morphological-physiological stages of plant development. From the samples taken, herbariums were prepared, and for anatomical studies, the samples were fixed in 70% alcohol. Temporary and permanent preparations were manufactured on the basis of conventional methods. Morphological features of the vegetative organs of the plant were investigated with the help of a binocular loupe, and the manufactured preparations with the help of microscopes “MI-4100DHD” and “Motic”. Anatomical drawings were made using a microscope “TAC-3.0C”. Anatomical terminology of various authors was used.

Results of the study

The root. The cross-section of the root is round in shape, with a cork on the outside. Cork consists of 3-4 rows, under it is located an exodermis. The mesoderm (the parenchyma) is represented by 10-15 layers of large round cells that are loosely located. In the mesoderm, excretory receptacles of a schizogenous character are
observed. Endoderm and pericycle are 1-row. Between cells of the endoderm, there is transmission cells located opposite the xylem rays. They serve to maintain the connection between the bark and the central cylinder. The cells of the pericycle are polyhedral, with a thin shell and densely arranged [3].

The location of the xylem is tetrarchic, the vessels are arranged in groups of 4-5, and the main parenchyma is thin-walled. The phloem is located between the rays. Cells of phloem are underdeveloped, small and multifaceted.

Anatomical structure of the stem


Anatomical structure of the root


The stem. The stem is covered with a single-layered epidermis. The epidermis consists of isodiametric large cells, contains stomata. Under the epidermis, photosynthetic parenchyma cells are located in 2-3 layers. The parenchyma is 13-15 rows. The central cylinder has a bundle structure. As the growth increases, the vascular bundles merge and form a ring. The stalk is characterized by a combination of parenchymatization and significant sclerosis [4].

Studies show that in arid conditions the number of vascular bundles increases, their volume decreases. Medullary rays are numerous. According to our reasoning, this is due to environmental conditions. In the center is well developed core, in which the reserve substances accumulate. Specific structure of the bundles, their shape, origin, development of sclerenchyma, reserve nutrients and etc. are characteristic features of this species.

The leaf. The epidermis is single-row, the contours of the cells are rectilinear. The cells of the upper epidermis are large and elongate. The epidermis is covered on the outside with the cuticle. Mesophyll is dorsiventral, palisade cells are small and 2-3-row, abundantly filled with chloroplasts. The major part of the mesophyll is the spongy parenchyma, the cells of which are large and loose. Leaves are epistomatic, stomata are observed only on the upper epidermis. The conductive tissue is well developed, vascular bundles of collateral type. The main vein of the leaf is large, heavily scarified. The lateral vascular bundles are small, numerous. In the bundles there is a strong development of xylem. The number of xylem rays in the vascular bundle is 6-7, in each ray there are 5-8 vessels. In the early stages of development, hairs form on the surface of the leaf, which later fall off, and the leaf and petiole remain bare [1].
The phloem is facing the underside of the leaf, the cells of which are small and polyhedral in shape. A bundle-sheath is formed around the vascular bundle, which serves for communication between the leaf mesophyll and the bundle elements.

### Anatomical structure of the leaf


### Anatomical structure of the petiole


**The petiole.** The petiole is covered with the epidermis, under which the cells of the chlorenchyma are located in 2-3 rows. Vascular bundles of various sizes: large and small, collateral. Sclerenchymation is observed only in bundles. The parenchyma is 8-14 rows. These cells on the border with the parenchyma and vascular bundles are small, in the center are large. The petiole has a bundle structure, at the base of the petiole there are 5 vascular bundles of the collateral type. Xylem inverted to the upper, and phloem to the underside of the petiole. The phloem is multilayer; the cells are small and multifaceted. Above each bundle is developed sclerenchyma, which increases the mechanical strength, as well as the elasticity of the petiole. In the early stages of development, hairs form on the surface. The core is wide, its cells thin-walled, contain spare nutrients [5].

**CONCLUSION**

Thus, the structure of vegetative organs reflects their function and the environment of formation. In the process of evolution, this species has adapted to various environmental conditions. All this allows us to think that materials on the anatomy of the vegetative organs of *Glycyrrhiza glabra* can be useful for understanding its ecology, as well as for solving phylogeny and taxonomy.

**LITERATURE**

THE WOMEN POSSESSING AN EQUAL RIGHTS IN SOCIETY IN THE EPOS OF “KITABI-DEDE GORGUD”

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ABSTRACT

The article deals with the power of the cults in the Oguz state, the completion of each other's family and state cults, and the honesty of the father's respect. In Kalin Oguz, the elderly manages to control the protection of the elephant, the white-headed cults, the existence of non-formal education. The responsibility for the honor of the spouse is not only the husband's personal responsibility, but also the responsibility of the society in the present case, in the Oguz era, above all the material-physical barrier, the Turkishness of peace and so on. are talked about.

Keywords: The Oguz society, the respect of women, heroic women, the attitude towards women, mother, loyalty of husband, care of child and mother, love, marriage settlement codes.

There is an invincible historical book in the life of Turkish people coming from old centuries: “Kitabi-Dada Gorgud”! Old Oguz eposes scraped to our memories are really one of the richest, greatest sources created by Turkish people.

Each part of a poem (called “boy”) is dedicated to divine love to the country, parents, brother and sister; and also bravery and heroism, happiness and felicite in the world. The name of “Kitabi-Dada Gorgud” is equal of huge eposes in the world, and it is a rare pearl for Azerbaijan literature, folklore, art and culture. The most valuable monument of the old Azerbaijan. Oguz tribe, their life style, customs and traditions, moral quality, such as thinking style (tefekkur terzi), ethical and esthetical views, family education (aile terbiyesi), naming (adqoyma), victory, respect and care of the old people.

From the beginning the information about Oguz state system attracts attention. It is clear that, The Oguz State is consists of "beys". All these to one centre. The leader of the State is “khan of khanes”. In this Solid Oguz State the assembly is held for the leaders of “beylik”, different problems are discussed, arbitrated in these assemblies. Despite of this, one assembly is definitely held: “It was a wedding held at khan of khan’s Bayandur. And a lot of guests were invited for the sake of Oguz beys”. It is the celebration of State day nowadays. These eposes praise heroism, the respect of mother and father, love, friendship, sincerity and self-sacrifice, the respect of the women, prefer mother rights, honesty, etc. While talking about the feelings of patriotism in “Dada Gorgud” epos we must mention the heroines too. It’s not said in vain.

There are special women in epos as idea bearer. Three of them are: Burla khatun, Banuchichek, Selcan khatun. The same women’s names are not mentioned in the epos, but their special places and positions are felt clearly. Dirse khan’s, Deli Domrul’s and Seyrey’s wives are such kinda of women. These women are described such as heroines in some parts. The first part (boy) known as the name of “Dirse khan’s son Bugac”, but he is not the hero of the events. Depriving Dirse khan from the heroism of the part (boy) causes his clever and sober-minded wife.

She releases her husband and family from the Bayandur khan’s punishment. She also releases her son from the enemies and gives him chance to live, because this women is “mother” reconciles him with his father, she does not let enmity between father and son. And at last, she gets her husband rid of death, keeps Dirse khan’s rules (beylik) wholly, she also achieves to give Bugac the title of the second leader (beylik), and prepares her son as a future khan. The attention to the women, mother noticed seen from the first stage of the epos. These words are said at that moment in the epos: “Dirse khan held great wedding with the intrusion of “dishli ehli”. “Dishli ehli” this expression shows that the spirit of patriarchy is dominant in the great Oguz state. Despite of it, there is a great respect for the woman’s word. It is the immortal rule for the Turkish people in attitude to woman, they think “The rights of woman is the rights of God”. The woman is appreciated as a wise member of society in “Dada Gorgud” epos. They don’t drop behind from the men in bravery. They suckle love to children, loyalty to husband, respect to parent. These words also approve the rights of woman in the same society: Dirse khan addresses his wife as the same words she does: “Beru gelgil bashum bakhtu, evum takhtu” (means: my luck, the throne of my house, come here). In the part of “Qanturali the son of Qanli Qocha father complains his son about that it is time for him to get married and asks him about the kind of girl he wants to get married. The son answers: “I want the girl who will wake up before me, will ride the horse before me, will reach the enemy before me”. And his father answers to him: “my son, you don’t want a wife, you want a brave husband, find that kind of girl and I’ll marry her to you. He heard about such kind of girl, she was a daughter of Trabzon king, named Sari.
donlu Selcan khatun. But the conditions for getting married to this girl are very hard. In order to get married to her one must to defeat a rabid lion, a black bull and camel. It means, Selcan khatun looked for not an ordinary husband, but a brave one. That means, in both Inner Oguz, and outer Oguz women wanted a Courageous man and visa versa. Because the defence of the country and family depend on it. When the brave man goes a part the country, he knows whom to trust the homeland. For example, Khanturali, whose horse was shot by an arrow in the battle ground drove out the enemy unmounted. Selcan khatun murdering the enemy took Khanturali on his horse and saved him. The character Selcan khatun shows that, the women's honour is greatly appreciated in Oguz society. Training the healthy and strong generation is a public goal. The old proverb is said for this momentum: “apple does not fall far from apple tree”.

Banuchichek is as heroine selcan khatun. We see her presence in the battles with heroes. The most successful woman character in the epos is “boyu uzun Burla khatun”. This part of epos called by the name of Uruz, but he is not the hero of the part (boy). Khazan khan can not be the hero of the part (boy) too. Boyu uzun Burla khatun, who established situation for her son's survival helped her husband, carried Oguz beys with her, cut with the sword the enemy's flag and became the main hero of the part (boy). There are some details in the part (boy) which gives information about the old Turkish life conditions, the cultural level, the traditional behavior, esthetic thoughts, etc. The first word about the birth of dirse khan's son is this: a son was born after a while. He gave her son to nannies and ured him. The concept of nanny in the sign of care to mother and child. That means, the culture of capitalist aristocratism in pedagogic-medical manners is the symbol of ethnic-family in Turkish people. The child is given to nannies. In this case the nanny not only takes care of child's nourishment, but also his physical and mental education. It's the factor of high-level society.

Dirse khan's wife addresses him like that: my khan father saw you, my mother's said you, I opened my eyes, noticed and loved you, Dirse khan. It reflects all codes of marriage, if the daughter wants to marry parents must take part in this process. It means, father and mother together allow her daughter to marry some one. The same time, the women says this expressions: “I opened my eyes and saw you”, “I loves you by my soul”. Thus, the girl has got a right to choose her husband. This is the pecularity of high-level democratic society.

"Kitabi-dada Gorgud" can not lose color, it always remains fresh, and admires generations now and then. We can courageously call this book the father of oral and written literature in Azerbaijan. Wise and meaningful thoughts, elegant and human feelings starts from “Kitabi-Dada Gorgud”, old our Literature. "Kitabi-Dada Gorgud" with its taste is a great monument as product of our ancestor's rich cognition and imagination.

LITERATURE

BACTERIAL PROSTATITIS AND PROSTATE SPECIFIC ANTIGEN LEVEL

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ABSTRACT

Serum levels of PSA in healthy persons have been known to vary depending on age, race, prostate volume, and biologic variability. The PSA level can increase for several reasons, including trauma, ejaculation, and rectal and urethral procedures. It can also increase because of diseases such as benign prostatic hyperplasia and prostatitis. The aim of this study was to investigate the relationship between prostatitis and the level of prostate-specific antigen in patients with no clinical evidence of prostate cancer before and after antimicrobial treatment.

We retrospectively study the serum PSA level and bacteriological results in 20 patients, ages 45-65 years old.

Normal blood PSA concentration (<4ng/ml) were observed after 3 weeks course of antibacterial treatment in 18 patients.

Diagnoses of Benign Prostatic Hyperplasia (BPH) was conformed with further recommendation for urological surveillance In two patient PSA level persisted to be elevated after 3 week of antibiotic course and was found to have adenocarcinoma.

Keywords: prostatitis, antibiotics, prostatic antigen.

INTRODUCTION

PSA is a prostate-specific marker. Serum levels of PSA in healthy persons have been known to vary depending on age, race, prostate volume, and biologic variability. The PSA level can increase for several reasons, including trauma, ejaculation, and rectal and urethral procedures. It can also increase because of diseases such as benign prostatic hyperplasia and prostatitis (1,2).
Prostate-specific antigen, or PSA, is a protein produced by normal, as well as malignant, cells of the prostate gland. The PSA test measures the level of PSA in a man’s blood. For this test, a blood sample is sent to a laboratory for analysis. The results are usually reported as nanograms of PSA per milliliter (ng/mL) of blood. Prostate-specific antigen (PSA), also known as gamma-seminoprotein or kallikrein-3 (KLK3), is a glycoprotein enzyme encoded in humans by the KLK3 gene. Prostatic-specific antigen (PSA) is a tumor marker helpful in diagnosis and follow-up prostate cancer, may rise due to prostatitis, benign prostatic hyperplasia (BPH) and cancer (3,4,5).

The National Institute of Health (NIH) classification for prostatitis is recognized as the best clinical classification system.

1. Acute bacterial prostatitis (NIH category I) – This category is relatively uncommon. The most common organism are gram negative enterobacteriaceae such as E. coli from gastrointestinal sources and less commonly gram positive enterococci. Initial diagnosis is made by history, physical, urinalysis and culture.

2. Chronic bacterial prostatitis (NIH category II) – NIH II typically affects men aged 40–70 years of age. CBP is a recurrent urinary infection due to the same organism, which persists in the prostatic fluid, and has an associated symptom complex. The bacteria reside in aggregates or biofilms found in ducts of the prostate gland.

3. Chronic Pelvic Pain Syndrome or CPPS (NIH category III) – This category is composed of two sub-types and accounts for the majority of all prostatitis cases. NIH III type A and B CPPS have persistent chronic genitourinary pain without uropathogenic bacteria.

4. Asymptomatic inflammatory prostatitis or AIP (NIH category IV) – No infection is present, cultures are negative and patients frequently have benign prostatic hypertrophy and/or an elevated PSA. A noninfectious etiology may be present such as prostate cancer. Urologic consult is required (6,7,8).

Prostatitis is the most common urological diagnosis in men < 50 years of age and approximately 10% of men have chronic prostatitis-like syndrome. Chronic bacterial prostatitis (NIH category II) – NIH II typically affects men aged 40–70 years of age. CBP is a recurrent urinary infection due to the same organism, which persists in the prostatic fluid, and has an associated symptom complex. Acute and chronic prostatitis has been a known cause of increased PSA levels.

Animal experiments have shown that chronic infection leads to the formation of a biofilm in the prostatic acini, leading to pathogens forming colonies with enhanced growth conditions. The bacteria reside in aggregates or biofilms found in ducts of the prostate gland. Chronic inflammation caused by persistent bacterial infections might lead to carcinogenesis (9).

The most common causative organisms of CBP are Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, Proteus species, Staphylococcus aureus and Enterococcus faecalis. Although fastidious organism such as Chlamydia trachomatis, Ureaplasma urealyticum, Mycoplasma hominis can cause non-bacterial prostatitis. TPSA level in prostatic fluid is much higher than in serum, causing leakage from prostatic acini leading to increase TPSA level in serum [5]. PSA levels, 32-42% had evidence of prostatitis and TPSA level fell to normal in 43-46% treated with antibiotics and remained so in most men for 1-2 years (10,11).

The aim of this study was to investigate the relationship between prostatitis and the level of prostate-specific antigen in patients with no clinical evidence of prostate cancer before and after antimicrobial treatment.

Table 1

<table>
<thead>
<tr>
<th>Age Range (Years)</th>
<th>Asian Americans</th>
<th>African Americans</th>
<th>Caucasians</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 to 49</td>
<td>0 to 2.0 ng/mL</td>
<td>0 to 2.0 ng/mL</td>
<td>0 to 2.5 ng/mL</td>
</tr>
<tr>
<td>50 to 59</td>
<td>0 to 3.0 ng/mL</td>
<td>0 to 4.0 ng/mL</td>
<td>0 to 3.5 ng/mL</td>
</tr>
<tr>
<td>60 to 69</td>
<td>0 to 4.0 ng/mL</td>
<td>0 to 4.5 ng/mL</td>
<td>0 to 4.5 ng/mL</td>
</tr>
</tbody>
</table>
MATERIAL AND METHODS
We retrospectively study the serum PSA level and bacteriological results in 20 patients, ages 45-65 years old, who visited TSMU the First University Clinic Urology department. A comprehensive urological examination was performed. All patients have symptoms of prostatitis. Prostate fluid and two sample of urine was cultured: midstream portion and after Digital Rectal Examination. The PSA analyses were done on immunology analyzer - Roche Diagnostics, Cobas E411. Bacteriology was done by using standard bacteriological methods, API-system (Biomerieux) and Kirby-Bauer susceptibility test (EUCAST guidelines 2017). All measurements were done in a TSMU the first university clinical laboratory.

RESULTS
Positive culture was observed in all patients. Same organism were isolated from prostate fluid and from urine: Enterococcus faecalis was isolated in 6 cases (30%), Escherichia coli 5 (25%), Enterobacter cloacae in-3 cases (15%), Staphylococcus aureus 3 cases (15%), Klebsiella pneumonia in 2cases (10%), Proteus mirabilis in 1cases (5%) (Table 2).

TPSA leve 4-7 ng/ml was observed in 13 patients, 7-10 ng/ml in 4 patients, 10-15ng/ml in 3 patients (table 2). All patients underwent a 3 week of antibacterial treatment depends on local susceptibility test results. Mostly with group of fluoroquinolones, such as second-generation ciprofloxacin, third generation levofloxacin. Most of them responded to the treatment very well.

Table 2

<table>
<thead>
<tr>
<th>4-7 Microorganisms</th>
<th>Number of patients (out of 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterococcus faecalis</td>
<td>6</td>
</tr>
<tr>
<td>Escherichia coli 7 Eee 10-15-10-10</td>
<td>5</td>
</tr>
<tr>
<td>Enterobacter cloacae10-15</td>
<td>3</td>
</tr>
<tr>
<td>Staphylococcus aureus Eee 10-15-10-10</td>
<td>3</td>
</tr>
<tr>
<td>Klebsiella pneumoniae 10-15-10-10</td>
<td>2</td>
</tr>
<tr>
<td>Proteus mirabilisEee 10-15-10-10</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3 PSA Test Assay Results

<table>
<thead>
<tr>
<th>4-7 PSA range ng/ml</th>
<th>Number of patients (out of 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-7</td>
<td>13</td>
</tr>
<tr>
<td>7-107710</td>
<td>4</td>
</tr>
<tr>
<td>≥10-15</td>
<td>3</td>
</tr>
</tbody>
</table>

Normal blood PSA concentration (<4ng/ml) were observed after 3 weeks course of antibacterial treatment in 18 patients. Diagnoses of Benign Prostatitic Hyperplasia (BPH) was conformed with further recommendation for urological
surveillance. In two patient PSA level persisted to be elevated after 3 weeks of antibiotic course and was found to have adenocarcinoma by TRUST and biopsies, Gleason grading system 3+3.

CONCLUSION

According our study low blood concentration of PSA were observed after effective antibacterial treatment therapy in most cases. A markedly elevated serum PSA level in bacterial prostatitis can cause confusion in the diagnosis of prostatic carcinoma. Therefore, PSA determination should be obtained after complete clinical resolution of inflammation to exclude prostatic malignant involvement. Prostatitis must be considered when using PSA as tumor marker.

REFERENCES

UNILATERAL BREAST INFECTION CAUSED BY E. COLI IN A NON-LACTATING WOMAN: CASE REPORT

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Abstract

Breast infection in lactating mothers is a common entity which in the majority of cases can be explained by ascending infections and the responsible organism is often S. aureus. However, it has been noticed that the number of non-lactating women presenting with breast infection is rising. Breast infection in non-lactating women is extremely rare and limited data is available in the literature regarding this entity. In our study, a 29-year-old non-lactating female patient who developed unilateral breast infection due to E. coli infection without any predisposing factors.

Keywords: Breast, E. coli, infection

Introduction

Pyogenic infections are the most common with a variety of causative bacteria. However, many other uncommon organisms have been reported. The infrequent non lactating infections can be divided into those occurring centrally in the periareolar region and those affecting the peripheral breast tissue. Breast infection is usually a disease of the pregnant and lactating women. It occurs rarely outside the lactation period(1). It usually occurs as a complication of trauma or pyogenic mastitis during lactation. In a study by Rizzo et al.(2) the most frequently isolated pathogen in breast infection during lactation period has been reported as S. aureus.

Breast infection in non-lactating women is extremely rare(3,4,5). The most important risk factor for non-lactating breast infection is reported as diabetes mellitus (DM)(6,7). There is also a report of a case of bilateral breast infection due to typhoid fever, in the literature(8,9). Acute inflammation of the breast usually occurs in nursing women, and to a lesser extent in non-lactating women, mostly in the reproductive age group and less commonly in menopausal women(10). This can be attributed to the increased activity of the breast tissue in response to female hormones. It may range from mild superficial mastitis to deep abscesses. The distinction between mastitis and frank abscess is of great importance since the management of these two entities varies from antibiotics to drainage either by aspiration or classical incision. The combination of antimicrobial therapy and drainage is the mainstay of treatment. Treatment with antimicrobials without drainage may lead to the surgical condition termed “Antibioma” which mimics malignancy both clinically and radiologically(11).
In this study, unilateral breast infection caused by E. coli in a non-lactating patient was successfully treated with antibiotics.

Case Report

A 29-year-old female visited oncology department complaining of unilateral breast pain. The patient was not lactating at that period; she had no children and did not have a family history of breast cancer. She was not diabetic. Following analysis were performed: ultrasonography, imprint cytology and bacteriology.

The breast ultrasonography (USG) showed a 15×8 heterogeneous low echogenicity lesion in the right breast lower lateral quadrat located within 3cm distance to the areola (picture1). Differential diagnosis included fibroadenoma and cyst with viscose inside breast. Samples for culture and imprint for cytology were taken from the left breast.

Imprint cytology of the left breast teat were performed. Specimen contained cellular detritus, erythrocytes, neutrophilic leukocytes, flat epithelial cells with reactive cytological changes.

E. coli was identified from the cultures obtained from this site. Identification of pathogen was done by using api20E system (biomerieux). Identified isolate was then tested against Amoxicillin/clavulanic acid, Ampicillin/Sulbactam, Amikacine, Levofoxacin, Ciprofoxacin, Moxifloxacin, Cefoxitine, Ceftazidime, Cefepime. Susceptibility testing results were interpreted according to the European Committee on Antimicrobial Susceptibility Testing guidelines published in 2017 (EUCAST 2017) (picture2).

<table>
<thead>
<tr>
<th>ANTIBIOTICS (Generic)</th>
<th>Sensitivity</th>
<th>Disc content µg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amoxicillin+Clav</td>
<td>R</td>
<td>20+10</td>
</tr>
<tr>
<td>Ampicillin+Sulbactam</td>
<td>S</td>
<td>10+10</td>
</tr>
<tr>
<td>Amikacine</td>
<td>S</td>
<td>30</td>
</tr>
<tr>
<td>Levofoxacin</td>
<td>R</td>
<td>5</td>
</tr>
<tr>
<td>Ciprofoxacin</td>
<td>R</td>
<td>5</td>
</tr>
<tr>
<td>Moxifloxacin</td>
<td>R</td>
<td>5</td>
</tr>
<tr>
<td>Cefoxitine</td>
<td>R</td>
<td>30</td>
</tr>
<tr>
<td>Ceftazidime</td>
<td>S</td>
<td>10</td>
</tr>
<tr>
<td>Cefepime</td>
<td>S</td>
<td>30</td>
</tr>
</tbody>
</table>

Clinical diagnoses was left breast cyst, right breast thick wall cyst.

Depending on susceptibility test results the patient was given oral ampicillin-sulbactam 750mg q8-12 hour for 7 days. She responded to the treatment very well. Further recommendations: To visit oncologist-mammalogist for control after 3 month.
CONCLUSION

Due to the delicate nature of the active breast tissue, prompt and appropriate management of breast infections is essential. Delay or inadequate management may lead to tissue destruction, chronic infections, periductal fistulas and breast deformities. Breast infection in non-lactating women is an infrequent but recognized clinical entity that deserves special attention. An underlying clinical condition should always be sought and treated. Indeed, in addition to cultures, radiological modalities may provide specific diagnosis and aid the management.

The most common cause of breast infection during the non-lactating period is S. aureus. Unilateral breast infection due to S. typhi and B. mellitensis has also been reported in the literature. We were unable to identify any report of unilateral breast infection due to E. coli in the literature.

In conclusion, the treatment of breast infection during the non-lactating period is controversial in the literature. There is no reliable data except for several case-reports regarding breast infection during non-lactating period. We think the pathogenesis of this type of infection is different. In the treatment of such patients should be preferred with culture-antibiogram and implementation of proper antibiotics, in our case ampicillin/sulbactam. In addition, imprint cytology should be performed in all cases.

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SEARCHING FOR EFFECTIVE METHODS OF VOCABULARY LEARNING.

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ABSTRACT
Most receptive vocabulary tests require the learners to recognize the meanings of given words. In order to produce words adequately, more knowledge is required than this basic form–meaning mapping. No wonder, then, that both researchers and language teachers have been searching for effective methods to facilitate the acquisition of thousands of words that are necessary to narrow the gap between the vocabulary learners know and the vocabulary they need. Just a few examples of learning methods that have been investigated are exposure to new words in extensive reading, exposure to words in shorter texts manipulated so as to ensure multiple encounters with the words, using new words in communicative activities, working with words in decontextualized exercises, and deliberately committing words to memory (e.g. by using word cards for expanded retrieval practice).

Because of practical constraints, most vocabulary studies have investigated how a small number of target words can be learnt during a short period of treatment, a lesson or several lessons. Longitudinal studies that investigate the acquisition of a large number of words will be an important addition to the growing amount of vocabulary research on input, instruction and involvement.

Keywords: vocabulary, second language, knowledge.

It is generally agreed by vocabulary researchers that learning vocabulary in a foreign language is a daunting task. According to Nation (2006), receptive knowledge of 8,000–9,000 word families is needed to comprehend authentic written texts in English, and knowledge of 6,000–7,000 families for dealing with spoken texts. But tests of receptive vocabulary size show that, at the end of high school and beginning of university studies, second language (L2) learners in various countries know just 2,000–4,000 word families, often despite more than 1,000 hours of instruction (1, стр 36).

Most receptive vocabulary tests require the learners to recognize the meanings of given words. In order to produce words adequately, more knowledge is required than this basic form–meaning mapping. No wonder, then, that both researchers and language teachers have been searching for effective methods to facilitate the acquisition of thousands of words that are necessary to narrow the gap between the vocabulary learners know and the vocabulary they need. Just a few examples of learning methods that have been investigated are exposure to new words in extensive reading, exposure to words in shorter texts manipulated so as to ensure multiple encounters with the words, using new words in communicative activities, working with words in decontextualized exercises, and deliberately committing words to memory (e.g. by using word cards for expanded retrieval practice).

For the past decade, we have been witnessing a heated debate between the advocates of ‘vocabulary-through-input' position and the proponents of word-focused instruction. The most recent example is the discussion between Cobb,
Nation, and McQuillan in the October 2016 issue of Reading in a Foreign Language (2, str 184). The gist of these positions is as follows. The first group believes that the best way to acquire many words is by reading large quantities of material. The second group claims that to meet new words 12 times during extensive reading – 12 times being the average number of encounters required for acquisition to occur, according to the available body of research – L2 learners will have to read about a million words per year, which is unrealistic since they have neither the time nor the ability to do this. Hence, the argument goes, word-focused instruction is indispensable. The truth is probably in the middle: While a certain amount of extensive reading is certainly possible and useful, some word focused tasks can also be quite effective.

Whether new vocabulary is encountered in the input or in word-focused instruction, some words tend to be remembered better than other words. One explanation of this is the number of encounters with the words, another is the amount of attention paid to them and the kind of cognitive operations performed with them. According to Anderson (1995), Baddeley (1997) and Schmidt (2000), retention of any new information depends on the amount of attention that individuals pay to various aspects of this information, and the quality or ‘depth’ of processing (3, str 64). In the case of vocabulary, this implies that when learners attend to many details related to a particular word – e.g. pronunciation, meaning, relation with other words – they have a better chance of remembering it than without such attention. In an attempt to operationalize the concepts of depth of processing, cognitive effort, elaboration and attention, Laufer and Hulstijn (2001) introduced the Involvement Load Hypothesis. They perceived ‘involvement’ as a motivational-cognitive construct, which can explain and predict learners’ success in the retention of new words that they are learning.

They proposed three components of involvement: need, search and evaluation. Each of these three components can be absent or present, and moderate or strong, when processing a word in a natural or artificially designed task. The combination of the components with their degrees of prominence constitutes involvement load. The authors’ assumption was that the higher the involvement load of a task, the better the retention of the words that are practiced in the task is likely to be.

A question that has not been answered yet is whether, on the basis of single studies, we can extrapolate how many words students will learn in a year, or over any long period of time. For example, if we found that eight words can be recognized after reading an interesting text of about 300 words, does this mean that 800 words will be recognized after reading 100 such texts? If students recalled the meaning of about 10 words out of 14 following a task in which they attempted to find a form–meaning fit, would they recall 100 words out of 140 after performing the same task? Because of practical constraints, most vocabulary studies have investigated how a small number of target words can be learnt during a short period of treatment, a lesson or several lessons. Longitudinal studies that investigate the acquisition of a large number of words will be an important addition to the growing amount of vocabulary research on input, instruction and involvement.

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NEW METHODOLOGICAL BASIS OF FINANCIAL RISKS ASSESSMENT

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ABSTRACT
Classification of the risks formed because of shortage of financial providing which plays significant role in competitive development of the enterprise has been carried out in the paper.
For this purpose considering financial possibilities of the enterprise new methods of risks assessment has been worked out. As a result of application of the offered methods risks assessment has been carried out at the end of the paper.
Probability of becoming bankrupt has been calculated and strategic development directions of the enterprise have been offered.
Key words: enterprise risk, bankruptcy, financial providing, net benefit, capital.

INTRODUCTION
From the researches of foreign and national experts (96%) investigating the main reasons forming risks in the activity of the enterprise it becomes evident that “shortage of financial opportunities” influences significantly the rivaling development of the enterprise (included into economic factors). That’s why there is a necessity to work out new methods of assessment financial opportunities of the enterprise.
Financial indices of the enterprise and their assessment.
The followings are included into the assessment:
1. Amount of the remainder profit at the ( net profit) disposal of the enterprise;
2. Unrealized remainder profit;
3. Product manufacturing and realization expenses;
4. Volume of turnover capital of the enterprise;
5. Measure of private capital and whole capital of the enterprise.

In the wide scope of market economy for substantiating the choice of the indices well characterizing the state of the enterprise authorities (expert) included into Altman models content have been looked through. These indices:
1. Ratio of net turnover capital (k1= efficient capital) / (assets) to assets.
2. Ratio of net profit (k2=net profit) / (assets) to assets (the first calculation version). This coefficient shows ability of industrial enterprise to use its assets to get net profit.
3. Ratio of profits to assets (the second calculation variant). If compared enterprise capital has various structures, correlation of profit to “K2” can pervert the value of the situation. Its main reason is that more the enterprise pays big percent amount on credit means tax applied profit amount will be less. That’s why K3 index is used “to clean” the index from the differences in capital structure.
4. Correlation of net profit to the enterprise capital: k4= ( pure profit) / (private capital of the enterprise). This index characterizes efficiency of the investment to the capital.
5. Turnover coefficient of the assets (k5= profit from ready product) / (assets).
Coefficient characterizes efficiency of the industry that’s how much product will be produced and realized the existing and attracted means? (ability of the shown assets to generate realization of the goods)
1. Correlation of the profit ( balance benefit ) to total capital. (k5=(balance benefit) / (total capital). This index characterizes activity efficiency of the capital invested to the enterprise.
2. Profit margin (difference) (k7=(pure profit) /(profit from ready product)). This index characterizes ability of gaining profit from all volume of the realized product in the enterprise. More is the index measure , more is the profit gained by stockholders.
3. Profit norm (k8= ( pure profit) / ( expenses)). This index determines efficiency, existence of financial reserves durability and increase of rivaling.
4. Finance coefficient. This coefficient describes financing structure of economical activity of the enterprise.
10. General meeting correlation (k10= (current assets) / (short – term obligations)).This coefficient mobilizing all turnover means shows possibility of meeting of shorter- term obligations.
11. Special weight of the private capital in the enterprise activities (k11=(private capital) / (assets)). This coefficient shows the danger on investing this enterprise.
12. Coefficient of meeting of investment ( k12= (special mean+ long= term obligation/assets)). This coefficient shows financing of what part of enterprise is carried out at its own means, long-term credit means, that’s stable sources.
13. Turnover index of the private capital ( k13= ( profit from ready product). This coefficient makes possible to asses love of use turnover capital.
Assessment of danger degree of the enterprise bankruptcy

For compiling prognosis model of the level of bankruptcy danger of the enterprise three independent and occasionally chosen bases are formed due to the finance reports of oil machine, - building enterprises in the field of countries refining industry. The first main data base is the base of quarter data on finance reports of the enterprises ( "Balance" and "Report on benefits and damages"). The second data is the quarter financial reports of the enterprise ( "Balance" and "Report on profits and damages"). This base is formed to compare its analyses results with the ones of the first base. The third is the base of main data ("Balance" and "Report on benefits and damages") [1,2].

As a result of carried out analysis of balance structures it has been determined that 2% enterprises use long-term credits, 91% use short-term credits, 7% enterprises don’t use credit means, but 72% enterprises are overloaded with little used assets.

To increase the observations, using “plant-year” method, data on the same enterprise’s various time periods are included into the selections. To exclude the repeated factors in the model prepared for determining bankruptcy danger of the enterprise special correlation coefficients are prepared, it makes possible to see repeat of K2/K3, K2/K4, K3/K4 factors. That’s why K2 and K3 indices are excluded from the further analyses.

For additional assessment of variability of sizes of modern factors and indicators depending on the choice, comparison of the sizes of 13 factors and the first and the second basis has been carried out [3,4]. As a result of statistic analysis of initial and calculated data, the following four-factors model is achieved:

\[
R = K_1 + K_4 + K_5 + K_8, \quad (1)
\]

Then 1 equation is written in the following form:

\[
R = K_1 + K_2 + K_3 + K_4, \quad (2)
\]

here, R- is indicator of enterprise’s bankruptcy danger:

\[
k_1 = \text{(efficient profit) / (assets)};
\]

\[
k_2 = \text{(net profit) / (private capital of the enterprise)};
\]

\[
k_3 = \text{(profit from ready product) / (assets)}.
\]

The existing situation shows that in future we’ll suppose that factors K1, K2, K3 and K4 have equal rights on the bankruptcy danger of the enterprise. That’s why average measure of each factor on the collection of all enterprises is determined when analyzing correspondence of factors influence to compared type. Average measure of K2 factor in calculating of coefficients of correspondence of factors to the compared type. Diagrams reflecting dynamics and character of each factor of the industry enterprises and average measures for corresponding factors have been set up. Then each measure changing character for average measure of corresponding factors of all the enterprises is observed.

During the prognosis of any period for determining probability of enterprise bankruptcy the comparative analysis with the closing time of the enterprise is carried out according to the average measure of corresponding factor and observed measure at the enterprises.

Probably measure of bankruptcy prognosis of the enterprise has been calculated as correlation of the measure of the analyzed factor before the closing of the enterprise to the quantity of the liquidated enterprises. Profit norm has been calculated as correlation of expenses spend on the balance profit. Analysis of change dynamics of K4 factor measure showed that in comparison with average norm when profit norm in three quarters is more than 30%, the enterprise with 64% probability will be liquidated during next four quarters.

Determination the computability level of the enterprise

The following equation can be offered when there is a danger for the enterprise with no computability and this danger approaches 10%:

\[
GN_{\text{min}} = GN_{\text{av}} \times (100-30)/100 = 0.7 \times GN_{\text{av}} \quad (4)
\]

here \(GN_{\text{min}}\) - is minimum profit norm when enterprise’s danger without competition approaches 100%, \(GN_{\text{av}}\) is average field or average profit norm of competitors.

The enterprise’s danger without competition analyzed because of the reduce of profit norm size can be determined as following:

\[
R_{\text{pr}} = GN_{\text{min}} / GN_{\text{av}} \quad (5)
\]

here, \(R_{\text{pr}}\) -danger of the goods of the enterprise without competition because of the reduce of profit norm size, \(GN_{\text{av}}\) is profit norm of the analyzed enterprise.

If to assess danger of enterprise goods without competition in the relation to any competitor then instead of \(GN_{\text{av}}\) competitor’s profit norm is included.

Professor M.I. Bakanov’s methods was used to determine the influence of profit norm size chance on product manufacturer with the help of this methods in the case of 30% exceeding of profit norm size than in competitors, product price of the enterprise can be reduced 9%. It will cause the competitors to lose their manufactures. With the help of K4 factor (profit norm), quantitative analysis enterprise’s four quarter danger without competition can be assessed with 64-68% accuracy.
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MICROBIOLOGIC CHARACTERISTICS AND RESISTANCE PROFILE OF CORYNEBACTERIUM STRIATUM ISOLATED IN ICU PATIENTS

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ABSTRACT

Corynebacterium species are found colonizing skin, other, and in the environment. More recently, due in part to improved microbiological techniques, the survival of immunocompromised patients and increased use of medical devices, the clinical importance of these microorganisms has been recognized, particularly as a cause of opportunistic infections. C. striatum can cause serious nosocomial infections in intensive care unit patients and may spread from patient to patient via the hands of attending personnel. Most reported C. striatum infections have been found in respiratory samples. A risk factor for acquiring the strain is intubation for longer than 24 h. We evaluated the microbiologic characteristics and resistance profiles of multidrug-resistant (MDR) Corynebacterium striatum. Accurate identification of microorganisms is not only important for treatment, also very important for epidemiological purposes. Once the organism is identified, universal hygiene measures, both in the environment and by caretakers, should be observed to avoid further outbreak. Vancomycin is the only antibiotic with sure efficacy against C. striatum.

Keywords: Corynebacterium striatum, multidrug-resistance, ICU, respiratory infection.

INTRODUCTION

Corynebacterium species are found colonizing skin, other, and in the environment (1,2). They are considered normal flora and not potentially pathogenic. More recently, due in part to improved microbiological techniques, the survival of immunocompromised patients and increased use of medical devices, the clinical importance of these microorganisms has been recognized, particularly as a cause of opportunistic infections. C. striatum can cause serious nosocomial infections in intensive care unit patients and may spread from patient to patient via the hands of attending personnel. A risk factor for acquiring the strain is intubation for longer than 24 h. In the last decades, in addition to Corynebacterium diphtheriae, the pathogenicity among Corynebacterium spp. has been reported associated with Corynebacterium amycolatum (5, 6), Corynebacterium jeikeium, Corynebacterium macginleyi, Corynebacterium realtyticum, Corynebacterium pseudodiphtheriticum and, less frequently with Corynebacterium xerosis (7). Corynebacterium striatum has been reported colonizing prostheses, catheter tips, and ventilator and feeding tubes, and it has been also identified as causative in cases of endocarditis, sepsis and bacteraemia (8-10). Until 1993 there were only three individual case reports of confirmed respiratory infections by C. striatum (11-13). Since then, numerous individual cases and various nosocomial infectious outbreaks of C. striatum have been reported 14-19 mostly in patients with chronic diseases requiring frequent and prolonged hospitalizations with repeated exposure to antibiotics against Gram-negative bacteria, organic obstructive disorders, or exposed to invasive procedures that disrupted the skin barrier. Most reported C. striatum infections have been found in respiratory samples, the vast majority of strains being multidrug-resistant. In general, C. striatum is resistant to penicillin but is susceptible to other β-lactams and vancomycin. Vancomycin was recommended as an empirical therapy for serious infections caused by corynebacteria (21). The optimal antimicrobial therapy for C. striatum infections is, however, controversial. In vitro susceptibility tests of tigecycline and linezolid show that they are active against coryneform bacteria (22, 23). At present, there is no ‘gold standard’ or guideline for the management of corynebacteria found in in vitro sensitivity tests. In light of the emergence of multidrug resistance and its involvement in nosocomial infections, appropriate interpretive criteria are needed for corynebacteria. We evaluated the microbiologic characteristics and resistance profiles, of multidrug-resistant (MDR) C. striatum strains.

MATERIAL AND METHODS

TSMU The first University clinic is multiprofile with 140-bed ward including 11-bed in Intensive care unit department. The clinic was open in 2015 April. Corynebacterium striatum was isolated in tracheal aspirates in three
patients during march of 2018. An isolation of a pure culture and Gram staining was performed for sputum bacteriology according appropriate protocol. Specimens were cultured on Columbia agar with 5% sheep blood (bioMérieux, France) according to Gould, in the sector manner. After 18-24 hours of incubation at 37 °C, clinic(bacteriological) laboratory identified bacteria as gram positive, catalase-positive rods-Corynebacterium spp and these cultures were send to the National CDC bacteriological laboratory for further identification to species levels. NCDC lab identified it by using the rapid identification systems (API-Coryne system, biomerieux) as Corynebacterium striatum and Antimicrobial Susceptibility Test(AST) was conducted through Kirby-Bauer method by using of standard discs (EUCAST guidelines2017). The following antibiotics were tested: penicillin, ciprofloxacin, moxifloxacine, gentamicine, vancomycine, clindamyicine, tetracycline, linezolid, rifampicine.

RESULTS

Only three C. striatum isolates were obtained from cultures of respiratory samples in 2018, in two man and one women with an age of 77, 76 and 61 years. All of them were ICU patients. They were intubated. They suffered an average of 10 hospital days before obtaining a positive culture. 77 year old men was admitted to our clinic ICU department with complane of right side pneumoniae, hipertension, chronic heart failure. 76 year old women’s diagnose was chronic heart failure, acute pneumoniae, hypertension, intracerebral hematoma. 61 year old men had acute respiratory failure and undergone operation of right side thoracotomy. In all patients empirically treatment was initiating with piperaciline/tazobactam, which was change with vancomicin according to antibiogram. One of patients died.

<table>
<thead>
<tr>
<th>Patient No</th>
<th>Hospital stay</th>
<th>Age (years)/sex</th>
<th>Underlying illness</th>
<th>Clinical specimens</th>
<th>Days in ICU</th>
<th>Therapy</th>
<th>outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>77/M</td>
<td>Chronic heart failure</td>
<td>Bronchial aspirate</td>
<td>4</td>
<td>Piperacilline/tazomactam-Vancomycin</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>76/F</td>
<td>Acute pneumoniae, Intracerebral hematoma</td>
<td>Bronchial aspirate</td>
<td>16</td>
<td>Piperacilline/tazomactam-Vancomycin</td>
<td>died</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>61/M</td>
<td>Acute respiratory failure</td>
<td>Bronchial aspirate</td>
<td>11</td>
<td>Piperacilline/tazomactam-Vancomycin</td>
<td></td>
</tr>
</tbody>
</table>

All three C. striatum isolates were detected without accompanying microbiota. All isolates showed antibiotic multiresistance, defined as resistance to three or more different antibiotic families.

<table>
<thead>
<tr>
<th>Antibiotics (Generic)</th>
<th>Interpretation</th>
<th>Disc content (μg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penicillin</td>
<td>R</td>
<td>1</td>
</tr>
<tr>
<td>Ciprofloxacin</td>
<td>R</td>
<td>5</td>
</tr>
<tr>
<td>Moxifloxacine</td>
<td>R</td>
<td>5</td>
</tr>
<tr>
<td>Gentamicine</td>
<td>R</td>
<td>10</td>
</tr>
<tr>
<td>Vancomycine</td>
<td>S</td>
<td>5</td>
</tr>
<tr>
<td>Clindamyicine</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>Tetracycline</td>
<td>R</td>
<td>30</td>
</tr>
<tr>
<td>Linezolid</td>
<td>S</td>
<td>10</td>
</tr>
<tr>
<td>Rifampicin</td>
<td>R</td>
<td>5</td>
</tr>
</tbody>
</table>

S - Sensitive R-Resistance

All the isolates exhibited the same pattern of antibiotic susceptibility, being resistant to penicillin, ciprofloxacin, moxifloxacine, gentamicine, clindamyicine, tetracycline, rifampicin and all were exclusively sensitive to vancomycin and linezolid (picture1). C. striatum linezolid susceptibility is rarely performed in clinical microbiology laboratory, to our knowledge, linezolid resistance has never been reported for corynebacteria.
CONCLUSION

Appropriate and improved microbiological techniques can reveal the clinical importance of the microorganisms which were previously considered normal flora and not potentially pathogenic. *C. striatum* is an emerging multidrug-resistant, potentially pathogenic microorganism that is able to cause nosocomial infections and respiratory colonization in ICU patients. It can be transmitted between patients, from person to person, and via caretakers; The fact that all the isolates exhibited the same pattern of antibiotic susceptibility suggest that a single strain selected in the ICU was transferred from one patient to another. *C. striatum* infections should be treated according to the results of the antibiogram. Accurate identification of microorganisms is not only important for treatment also very important for epidemiological purposes. Once the organism is identified, universal hygiene measures, both in the environment and by caretakers, should be observed to avoid further outbreak. Vancomycin is the only antibiotic with sure efficacy against *C. striatum*.

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