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The Role of Pathogenic Staphylococci in the Occurrence of Purulent-Inflammatory Complications and the Specifics of Their Bacteriological Diagnosis

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Abstract: Purulent - inflammatory diseases today's on the day medicine current from problems one are, they are from the operation next period, as well as various traumas and immunity weakening with related in cases wide Staphylococci not only purulent - inflammatory processes instigator microorganisms as, maybe they to antibiotics endurance level clinical with in practice serious problems brought Especially MRSA (Methicillin- resistant Staphylococcus aureus) resistant Staphylococcus aureus) strains spread staphylococci against the fight further is making it difficult.

Key points: Methicillin, Staphylococcus aureus, MRSA, strain, purulent - inflammatory.

Introduction.

Latest in years take visited research staphylococci pathogenicity factors determination and them effective control to do of the matter importance showed. This pathogen microorganisms high virulence has that and their complicated ecological flexibility them medicine in practice noticeable to the problem (Foster, 2017). Staphylococci by working removable exotoxins and proteases inflammation process to increase and as a result purulent complications appearance to be reason Therefore, this microorganisms early diagnostics and their to antibiotics sensitivity determination modern medicine for current importance profession will reach.

Research relevance, as well as the latest in years bacteriological diagnosis methods development Also related to. Molecular biology diagnostics methods, such as PCR (polymerase chain reaction) chain reaction) using staphylococci to be determined and their to antibiotics endurance profiles about information to take opportunity existence purulent - inflammatory complications early in stages determination opportunity (Kurtzman et al., 2021). This in research this new methods application and their efficiency assessment through diagnostics processes further improvement in mind caught.

This point of view purulent - inflammatory complications brought issuer pathogen staphylococci against effective diagnostics and treatment methods determination not only of patients health restore, maybe of the disease wide spread prevent to take too big for importance has. The research relevance, as well as staphylococci against in the fight new and effective methods current to do through clinical in practice treatment process noticeable at the level improve to the possibility has that with is determined.

Staphylococci to antibiotics endurance medicine in practice important from problems one this is microorganisms by sick patients in treatment traditional antibiotics ineffectiveness brought release possible (Turner et al., 2020). Therefore, this of the research relevance not only diseases treatment efficiency increase, maybe antibiotics with treatment strategies optimization and new medicine tools working exit for scientific basis It is also visible in creation.

Research and methods.

Work purpose: This of the work purpose purulent - inflammatory complications to the surface on arrival pathogen staphylococci place and their bacteriological diagnosis to oneself typical features from learning consists of.

Research tasks:

1. Purulent - inflammatory complications pathogenesis and pathogen staphylococci role according to there is literature study.
2. Staphylococci virulence factors and to antibiotics endurance assessment.
3. Bacteriological diagnosis methods study and their efficiency analysis to do
4. Various diagnostics methods clinical importance compare and efficiency assessment.
5. Research to the results based on, purulent - inflammatory complications early diagnostics for practical recommendations working exit

The research object and subject: The research object purulent - inflammatory diseases brought issuer pathogen staphylococci. The study subject and this microorganisms virulence factors, antibiotics endurance, and their bacteriological diagnosis to oneself typical features analysis from doing consists of.

Research methods: In the study bacteriological analysis, in the laboratory staphylococci to antibiotics sensitivity detection, molecular biology methods through virulence factors study such as methods Also, literature analysis using progressive research results studied, diagnosed methods comparative evaluated.

Result and discussion.

Work newness: This in research pathogen staphylococci against bacteriological diagnosis methods to oneself typical features first times wide in scope studied. With this together, in staphylococci to antibiotics endurance level and their virulence factors clinical importance according to new and important information cited.

From this except staphylococci to antibiotics durability, including wide spectral to antibiotics resistant strains spread and their clinical in practice brought releasing consequences about new scientific results presented In the study cited news diagnostics process improve for new approaches working to go out and clinical in practice applicable bacteriological diagnosis methods further to improve opportunity gives.

With this together, research purulent - inflammatory diseases early in stages determination and staphylococci to antibiotics endurance assessment according to modern diagnostics methods clinical to practice current to grow through of patients life quality to improve This is especially true after surgery. next complications and in the hospital lying down in patients infections control in doing very important. Therefore, this research purulent - inflammatory complications brought issuer pathogen staphylococci against effective diagnostics and treatment methods to determine focused.

Conclusion.

Research your work importance: Research results purulent - inflammatory complications effective diagnostics to do and treatment for medicine in practice application possible was recommendations working to go out service Staphylococci virulence factors and to antibiotics endurance deep study as a result patients effective treatment opportunities increases, this and of diseases repetition to reduce and of patients life quality to improve help gives. From this except this research clinical in practice bacteriological diagnosis processes improve and new diagnostics approaches working on the way out important importance profession will reach.

Literatures:

1. Albus A., Arbeit RD, Lee JC Virulence of Staphylococcus aureus mutants altered in 5 capsule production./ / Infect. Immun.- 1991. V.59. - No. 3.- P. 10081014.
2. Antibacterial actions of carnosine and homocarnosine. French Patent No. 71.07856 of March 1, 1971.
3. Aruoma OI, Halliwell V., Aeschbach R. Antioxidant and pro-oxidant properties of active rosemary constituents: carnosol and carnosic acid./ /Xenobiotica.-1992.- V.22, No. 2.- P.257-268.
4. Baselga R., Albizu I., Amorena B. Staphylococcus aureus capsule and slime as virulence factors in ruminant mastitis.//Vet.Microbiol.- 1994.-V.39.- No. 3-4.-P.195-204.
5. Betley MJ, Harris TO. Staphylococcal enterotoxins: Genetic characterization and relationship between structure and emetic activity./ / Food Microbiol.-1994.-11, #2.-P. 109-121.
6. Branger C., Fournier JM, Loulergue J. Epidemiology of Staphylococcus aureus in patients with cystic fibrosis.//Epidemiol. Infect.- 1994.-V.112.-№ 3.-P.489-500.
7. Brawn EJ Interaction of gram-positive microorganisms with complement.// Curr.Top.Microbiol.Itmmunol.- 1985.-V. 121.- P. 159-187.
8. Branley A,J. Etiology and pathogenesis of summer mastitis.// J. Current Topics Veterinarian medicine and animal science.//1987.-V.45.- P.81-82.
9. Brown EJ. Interaction of gram-positive microorganisms with complement./ / Curr.Top.Microbiol. Immunol.- 1985.-V. 121.- P. 159-187.
10. Buswell J., CTRourke D., Craven N. L-forms of staphylococci and streptococci. //Vet. Rec - 1995. V.136. - No. 12. - P.304
11. Cheung AL, Yeaman MR, Sullum PM Role of the sar locus of Staphylococcus aureus in induction of endocarditis in rabbits.//Infect.Immun.- 1994.-V.62.-№5.-P.1719-1725.
12. Colburn KK, Wing LG, Ashman RF Effect of immunoglobulin G on the responsiveness of human neutrophils to soluble staphylococcal protein A induced neutrophil migration inhibition factor from T-lymphocytes.// Infect.Immun.- 1980.-V.30.- P.647-677.
13. Cole RM Some implications of the comparative ultrastructure of bacterial Informs. In: Mycoplasma and L-Forms of Bacteria (S. Madoff).- New York, 1971.-P.49-83.
14. Czuprynski CJ Bacterial Evasion of Cellular Defense Mechanisms//Virulence Mechanisms of Bacterial Pathogens /Ed. J. A. Roth. Washington, 1988. P.141-160.
15. Donaldson DM, Roberts HS, Tew JG Beta-lysin, lysozyme, and antibody- complement./ / Infect. Immunol. 1974.- V.41.-No. 10. - P.563.
16. Dziarski R. Effects of Peptidoglycan on the Cellular Components of the Immune System Biological Properties of Peptidoglycan// Biological Peptidoglycan. Berlin, 1986. P.229-247.
17. T., Kanda Y., Mori S. Extracellular membranous structures in a stable L-form of Staphylococcus aureus.// J. Gen. Microbiol.- 1977.-V. 103.-P. 189-191.
18. Egan J. Mastitis a revtow.//Irich.ver.news.- 1984.-Vl- No. 3.- P.5-18.
19. Forsgren A. Protein A from Staphylococcus aureus. Production of protein A by bacterial and L-forms of Staphylococcus aureus./ /Acta Pathol. Microbiol. Scandi-nav.-1969.-V.75. P.481-490.
20. Forsgren A., Nordstrom K. Protein A from staphylococcus aureus: the biological significance of its reaction with IgG// Ann. NY Acad.Sci.-1974.- V.2367-P.252-265.
21. Forsgren A., Quie P. Effect of staphylococcal protein A on heat- labile opsonin.//J.Immunol.-1974.-V. 112.- Pl 177-1180

22. Forsgren A., Svedjelung A., Wigzell H. Lymphocyte stimulation by protein A of Staphylococcus./ / Europ J.Biochem.-1976.-V.6.- P.207-213.
23. Gille JJ, Pasman P., Van Bercel CG Effect of antioxidants on hyperoxia-induced chromosomal breakage in Chinese hamster ovary cells: protection by car-nosine./ /Mutagenesis.-1991 -V.6. -P.313-318.
24. Grov A. Human colostral IgA interacting with staphylococcal protein A.//Acta path.microbiol.scand.- 1976>Sect. C.-V.84.-P.71-72
25. Jiang HQ, Chen YF, Li AN Clinical burn wound infection caused by L-forms of Staphylococcus aureus./ / Burns. 1994. - V.20. - No. 1. - P. 83-84.
26. Karamanos NK, Panagiotopoulou HS, Syrokou A. Identity of macromolecules present in the extracellular slime layer of Staphylococcus epidermidis.// Biochimie.- 1995. -V.77.-№ 3.-P.217-224.
27. Kolawole DO, Adedayp O. Resistance of mouse-virulent encapsulated nasal isolate of Staphylococcus aureus to disinfectants and antiseptics.//Biomed.Lett.- 1994.-50, No. 198,-P.151-156.
28. Koo SP, Yeaman MR, Bayer AS Staphylocidal action of thrombin-induced platelet microbicidal protein! is not solely dependent on transmembrane potential./ / Infect. Immun.-1996.-V.64 (3).-P.1070-1074.
29. Kotowaki K. Bacterial flora clinical isolation cases of mastitis orar baby wrazliwose neither antibiotyki.//Med. Veter.- 1987.-V.43.- No. 5.- P.278-280.
30. Kuo WN, Ganesan U., Davis DL Regulation of Staphylococcus protease using complement, interferon and immunoglobulin as substrates. // Cytobios. -1992.-V.71.-№ 284.-P.29-36,
31. Lederberg J. Lederberg EM Replica plating and indirect selection of bacterial mutants. // J.Bacteriol., -1952.-V.63.-P.399-406.