were not isolated. Other Gram-negative bacilli, Streptococcus spp., and Staphylococcus aureus were isolated from 19 (4.9%), 9 (2.3%), and 7 (1.8%) cases, respectively. Few reports on the epidemiology of meningococcal disease in India indicate low incidence of endemic meningococcal disease in India except for occasional epidemics in cities of North India. There is a need of surveillance regarding isolates in acute bacterial meningitis. Such studies should be carried out on a regular basis in a tertiary care hospital where a good laboratory support is available. This will show the trend over the years and will give a picture of the causative organisms for acute bacterial meningitis from time to time.

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HEPATITIS B IN EUROPE

Introduction

Hepatitis is a general term used to describe inflammation of the liver. Liver inflammation can be caused by several viruses (viral hepatitis), chemicals, drugs, alcohol, certain genetic disorders or by an overactive immune system that mistakenly attacks the liver, called autoimmune hepatitis. Depending on its course, hepatitis can be acute, which flares up suddenly and then goes away, or chronic, which is a long-term condition usually producing more subtle symptoms and progressive liver damage [1].

There are five viruses that cause the different forms of viral hepatitis: hepatitis A, B, C, D and E. Hepatitis A is mostly a food-borne illness and can be spread through contaminated water and unwashed food. It is the easiest to transmit, especially in children, but is also the least likely to damage the liver and is usually mild and is completely resolved within six months. Hepatitis

B can be transmitted through exposure to contaminated blood, needles, syringes or bodily fluids and from mother to baby. It is a chronic disorder and, in some cases, may lead to long-term liver damage, liver cancer and cirrhosis of the liver after many years of carrying the virus. Hepatitis C is only transmitted through infected blood or from mother to newborn during childbirth [2].

It too can lead to liver cancer and cirrhosis in the long term. Hepatitis D is only found in people who are also infected with hepatitis B. Hepatitis E is predominantly found in Africa,

Asia and South America. Certain generally safe medications can be toxic to the liver and cause hepatitis (drug-induced hepatitis) when taken in excess or in very high doses. These include acetaminophen (Tylenol) and even vitamin A. Check with your pediatrician about appropriate dosing for your child [3].

There are two types of hepatitis B infections. 1. Acute infection. When a person is first infected with hepatitis B, it is called an acute infection. Symptoms range from no symptoms to liver failure. Usually, adults recover from this and have no further problems. 2. Chronic infection. If the virus remains in the blood for more than six months, then it is considered a chronic infection. While most adults do not develop chronic hepatitis B, infants and young children are less able to rid their bodies of the virus and may develop chronic hepatitis B as a result. Those with chronic hepatitis B infection are at an increased risk for development of liver cancer [4]. It is found in the blood, semen, and vaginal secretions of an infected person. Hepatitis B is easier to catch than HIV because it can be 100 times more concentrated in an infected person's blood.

Goal

To investigate the prevalence and incidence of hepatitis b infection in various regions of Europe, identifying trends over time and differences among demographics.

Material and methods of research

The analysis and generalization of modern medical scientific literature on this topic.

The results of the research and their discussion

Africa is on the whole considered to have a high HBV endemicity. HBV infection is hyperendemic [> 8% of hepatitis B surface antigen (HBsAg) chronic carriers in the general population] only in some sub-Saharan countries such as Nigeria, Namibia, Gabon, Cameroon, Burkina Faso.Annual epidemiological report for 2022 [5]. Stockholm: ECDC; 2024. For 2022, 30 EU/EEA countries reported 28 855 cases of hepatitis B virus (HBV) infection. Excluding the three countries that only reported acute cases, the number of cases (28 420) corresponds to a crude rate of 8.5 cases per 100 000 population. In 2022, 6.6 people per 100,000 population were first diagnosed with Hepatitis B in Russia.HAV infection occurs worldwide but is most common in developing countries with inadequate sanitation, limited access to clean water, and poor hygienic conditions (especially in Africa, Asia, Central and South America, the Middle East, and the Western Pacific) [1]. The 2024 guidelines prioritize simplified treatment criteria for adults and adolescents and expanded eligibility for antiviral prophylaxis for pregnant women to prevent mother-to-child transmission of HBV.HBV can be found in less than 0.1% of people in some countries in western, northern and central Europe, while in certain countries in eastern Europe and central Asia the figure can be as high as 6–8%. HBV is transmitted through contact with the blood, semen or other body fluids of an infected person.In most European countries, less than 1% of people (1 out of 100) have chronic HBV infection. The highest percentages reported are in Greece (3.4% of people) and Romania (5.6% of people) [5].

Conclusions

1. Prevalence of Hepatitis B in Europe: The prevalence of hepatitis B varies significantly across different regions in Europe. Western, northern, and central European countries generally exhibit a lower prevalence, with less than 0.1% of the population affected. In contrast, certain eastern European and central Asian countries report higher prevalence rates, reaching up to 6–8%. This disparity highlights the need for targeted public health interventions and vaccination programs in regions with higher prevalence rates to reduce the burden of hepatitis B infection.

2. Impact of Chronic Hepatitis B: Chronic hepatitis B infection poses a significant health risk due to its potential progression to severe liver conditions, such as liver cirrhosis

and liver cancer. This risk is particularly high in infants and young children who are more likely to develop chronic infections. Public health initiatives should focus on early detection and treatment of hepatitis B, as well as preventive measures such as vaccination and antiviral prophylaxis for pregnant women to prevent mother-to-child transmission.

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ANTIMICROBIAL NOSOCOMIAL RESISTANCE ON ESKAPE PATHOGENS

Introduction

Antimicrobial resistance (AMR) is now a global concern. Furthermore, the global and rapid spread of multi-drug-resistant (MDR), extensively drug resistant (XDR) and pan-drug resistant bacteria (PDR), which cannot be treated using the current antimicrobials and other drugs that we have in our arsenal is frightening as even common infections can become life-threatening to living populations.

The ESKAPE pathogens (*Enterococcus faecium, Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa, and Enterobacter species)* are critical not only because they cause the majority of nosocomial infections, but also because they represent transmission, pathogenesis, and resistance paradigms [1]. The World Health Organisation (WHO) developed a list of antibiotic resistant, global priority pathogens to aid the research and development of new and effective antibiotic treatments (World Health Organisation, 2024). Established according to multi-criteria analyses, the list was ranked into three priority tiers: medium, high, and critical.

Within the "Priority 1: Critical" pathogen group on the WHO's priority pathogens list are the multidrug resistant (MDR; bacteria that are resistant to three or more classes of antibiotics) Gram-negative ESKAPE (Rice, 2008) pathogens; *Acinetobacter spp.* (carbapenem-resistant), *Enterobacterales* (third generation cephalosporin resistant and carbapenem resistant), The "Priority 2: High" pathogen group contains the Gram-positive ESKAPE pathogens; *E. faecium* (vancomycin-resistant), *P. aeruginosa* (carbapenems resistant) and *S.aureus* (methicillin-resistant, vancomycin intermediate and resistant). These pathogens contribute significantly to the burden of disease in developed and developing nations and are frequently isolated from clinical settings where they are associated with several life-threatening, hospital-acquired (HA) infections, e.g., bacteraemia, urinary tract infections (UTIs), pneumonia, meningitis, and wound