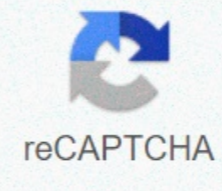




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What's a MacConkey agar? It was the first solid differentiating medium to be used in the 20th year. It is named after Alfred Theodore MacConkey, who developed the MAC. It is both a selective and differentiated medium, which is useful for isolating and differentiating non-demanding gram-negative rods, especially bacteria of the genus *Pseudomonas* and Enterobacteriaceae family. (3, 4) MacConkey's Agar is a selective medium. Prevents the growth of gram-positive bacteria due to the presence of bile salts and crystal violets. Only gram-negative bacteria can thrive in MacConkey agar. At the same time, MacConkey agar is a differential medium because it allows you to distinguish the types of microorganisms based on the color of the medium. (1, 3, 4) Picture 1: Shows a comparison of two media, one of which contains lactose fermentation colonies and the other contains non-lactating colonies. Image Source: microbiologyinfo.comPhoto 2: MacConkey agar 24-hour growth lactose fermenting colonies. Image Source: cdn.biologydiscussion.comWhat are the components of MacConkey agar? Distilled waterAgarColors, including neutral red and crystal fluffSodium chlorideBile saltPeptoneLactose monohydrate (2)Proteose peptone MacConkey agar test PrinciplesThis test is used to isolate gram negative enteric bacteria and to distinguish between lactose and non-fermenting gram negative bacteria. The purpose of MacConkey agar is to isolate Gram negative enteric bacteria. Isolation of colic bacteria and intestinal agents in biological, water and dairy products. MacConkey agar test is done to breed lactose fermenting gram negative bacteria not lactose fermentation. (2, 6, 7) To carry out the MacConkey agar test, the first thing to do is to suspend about 50 grams of dehydrated medium in a liter of purified or distilled water. Bring to the boil to make sure that the medium is completely dissolved. Using the autoclave method, sterilize at a pressure of 15 lbs for about 15 minutes. Allow to cool. Mix the mixture before pouring into the sterile Petri plates. (5, 8) MacConkey Agar Test ResultsHow to interpret the result macconkey agar test? Lactose fermenting bacteria grow like red or pink. They are also surrounded by acidic condensed bile. Why did it turn red? The color turns red because the production of acid in lactose when the medium's pH level fell below 6.8. Bacteria categorized as lactose fermentors eat lactose, which is present in the MacConkey agar medium. In the process, bacteria create an acidic byproduct, due to which the medium becomes red or pink. (9, 10) On the other hand, the appearance of the culture medium does not change if the strain of bacteria lactose does not ferment. For example, salmonella and Shigella. MacConkey media does not change color. In fact, colonies of lacto-resistant bacteria are responsible for the discoloration. What's the use if the colony grows on macconkey? Bacteria that grow in macConkey are classified as gram negative because gram positive bacteria do not grow in the MacConkey agar medium. (7) The pink or red colonies in the Enterobacteriaceae family have coliform bacteria. Examples are *Citrobacter*, *Escherichia*, *Enterobacter*, *Hafnia* and *Klebsiella*. If these bacteria are present it means that food and water are unhealthy or unsafe for human consumption. On the other hand, examples of non-lactose fermenting bacteria are members of Enterobacteriaceae such as *Salmonella*, *Proteus*, *Yersenia*, *Morganella*, *Shigella*, *Providencia*, and *Edwardstiella*. (5, 7, 8) Why is agar used for growing bacteria? Agar is used for growing bacteria for specific purposes. Bacteria are grown on solid surfaces because they allow individual colonies to grow. The bacterial cells that grow on this medium were actually descendants of the parent cells. Using agar, you can easily see the presence of contaminants and the types of contaminants because they look different on the agar plate. Agar is a polymer like gelatin, but it has a better melting temperature than usual gelatin products. MacConkey agar can only develop grams of negative bacteria. The agar crystal violet used in the MacConkey test contains a coloring that is the first gram stain used as a colorator. What crystal violets do is penetrate the cell wall deeply from grams of positive bacteria. This limits the growth of gram-positive bacteria, making MacConkey agar selection medium. To find out if the bacterium gram is positive, make sure you've added crystal violets to the agar formula. Thus, you will be able to conclude that the bacteria are actually gram positive. This is why gram staining is not so reliable in identifying organisms. Further testing should be carried out to confirm the strain of bacteria in the culture medium, and the MacConkey agar test should be a reliable test. (4, 5, 9) What's there to keep in mind? The MacConkey agar test was a change from neutral red bile to salt agar. The MacConkey agar test contains sodium, lower agar content and corrected concentrations of neutral red and bile salts. Peptones added to MacConkey agar offer nitrogen compounds and amino acids. To maintain an osmotic balance, sodium chloride is added. A carbon dioxide energy source, lactose is added to the medium. To inhibit the growth of gram-positive organisms, bile salts and crystal violets are added. The MacConkey agar test is one of the widely used breeding ground for identifying enteric organisms. The MacConkey agar test is useful not only in identifying enteric organisms, but also in segregating food presence in water. Successfully Successfully the entero micro-organism must be the perfect combination of lactose and neutral red indicator. Pink discoloration is caused by the lactose organism. The cause of discoloration is the formation of acid, which changes the pH of the medium. The colorless, you can change to red or pink. Changes in pH levels also lead to the production of bile rainfall. If the formed colonies are transparent, this indicates that the body is not lactozer-like, such as *Shigella* and *Salmonella*. (3, 4, 8, 9) References:www.quora.comwww.scribd.com /microbiologyinfo.com microbiology by Vasanthakumari IJBPAS, June, 6(6) 2017; ISSN 1220-1235; 2277-4998 1220 IJBPAS, June 2017, 6(6) IJBPAS from PSEUDOMONAS AERUGINOSA ISTON INFECTION, 2017. AHMED Z1, AWAN MA1, SAMAD A1 and MUHAMMAD S2* 1: Centre for Advanced Studies in Vaccinology and Biotechnology (CASVAB) Balochistan University, Quetta 2: Department of Pharmacy, Faculty of Health Sciences, University of Ba Lochistan, Quetta *Appropriate Author: Pharmacognosist59@yahoo.com Abstract The study was conducted to separate the nosocomial pathogen *Pseudomonas aeruginosa* from the clinical trial of patients admitted to two public hospitals in Pakistan's Quetta district and to determine the antimicrobial sensitivity of isolates. Pus samples (n=100) were collected from infected patients in the 20-60 age group and belonged to both sexes. Two public hospitals in the Quetta district have been targeted. *Pseudomonas aeruginosa* isolates were identified by a combination of staining and biochemical studies. Antimicrobial susceptibility of *Pseudomonas aeruginosa* to various antibiotics was carried out using the Kirby-Bauer method. *Pseudomonas aeruginosa* was found in 45% of clinical samples. The bacterial isolate was relatively high in male patients. The frequency of bacterial isolate was highest in the 40-49 age group. In the sensitivity study, 7 different antibiotics were studied. *Pseudomonas aeruginosa* isolates showed the highest sensitivity to ciprofloxacin (100%) (88%), Gentamicin (42%), Chloramphenicol (25%) and low sensitivity to doxycycline (7%). *Pseudomonas aeruginosa* isolates are completely resistant to tetracycline and oxacillin. Study showed that the high frequency of the existence of nosocomial pathogen *Pseudomonas aeruginosa* in wound infection in hospital patients districtQuetta, Received 5January 2017; revised on 1 February 2017; adopted on 17 March 2017; Available online 1 June 2017 Muhammad S et al Research Article 1221 IJBPAS, June, 2017, 6(6) Pakistan and finds the pathogen resistant clinically used antibiotics. Ciprofloxacin and amikacin have been shown to be effective against these isolates. Keywords: *Pseudomonas aeruginosa*, Nosocomial Susceptibility, Pathogen, Kirby-Bauer INTRODUCTION Nosocomial infection (NI) or hospital-acquired infection are those infections that do not exist at the time of the patient's admission, but are given these infections after they have been admitted. NI infection can be localised or systemic [1] these infections developed 48-72 hours after hospital admission [2] Nosocomial infection is the main cause of death and morbidity causes complications in the treatment of patients, increases costs and prolongs the patient's hospital stay [3]. The main sites of nosocomial infections are the airways, bloodstream, urinary tract and surgical areas [4]. Nosocomial wound infection begins with the invasion of microorganisms into tissue, harms them by disturbing their defense mechanism, the release of pus causes a serious complication in the healing of wounds. Post-operative wound infection begins after surgery and causes a number of problems in the treatment of the patient [5] The frequency of nosocomial infection during treatment may increase in immunosuppressive patients and prolong hospital stay [6]. The risk of nosocomial infection in diabetic patients, smokers, elderly people and malnutrition patients is increased [7]. Nosocomial infection can be controlled by proper hand hygiene, instrument quality and appropriate medical services [8]. The most common types of nosocomial infections of urinary tract, skin, lower respiratory tract and surgical wound [9] virus, bacteria and fungi are involved in nosocomial infection [10] viral and fungal nosocomial infections are less common than bacterial infection [11] Various types of bacteria involved in nosocomial infection. *Staphylococcus aureus*, streptococcal pneumonia and *Pseudomonas* are the most common bacteria involved in this infection [12]. A surgical site or surgical wound infection is a nosocomial infection that occurs after surgery, during treatment it can cause complications, even the death of the operative patient [13]. Microorganisms that are responsible for the activation of surgical wound infection cause the immune system to result in tissue damage and inflammation. All of these damages occur due to bacterial toxins, super antigen and uncontrolled proliferation of T cells [14] *Pseudomonas aeruginosa*, *staphylococcus aureus* and *Escherichia coli* are the most common bacteria that act as surgical area infection [5]. Muhammad S et al Research Article 1222 IJBPAS, June, 2017, 6(6) *Pseudomonas aeruginosa* is Gram negative rod, facultative anaerobe, motile. It can be found everywhere, including soil, water, plants, animals and humans. It is nosocomial infection that causes bacteria to spread to contaminated material in the hospital. It is also widespread from medical staff [15]. *aeruginosa* is an opportunistic opportunist and penetrates into tissues, causing various infections such as urinary tract infection, endocarditis, gastrointestinal infection, meningitis, especially in immunocompromising patients [16]. *Pseudomonas aeruginosa* is used in mediums in Cetrinide Agar, MacConkey Agar [17], blood agar [18]. *Pseudomonas aeruginosa* biochemically identify catalase test, oxidase test, citrate recovery test, indole test, triple sugar iron test, urease test, methyl red test, voges proskauer test and gel liquefaction [19]. *Pseudomonas aeruginosa* is resistant to quinolones, tetracycline, chloramphenicol [20]. Sensitive to gentamicin [21]. Nosocomial infection has been found in the world extensively. Prevalence varies in different countries. There are 1.7 million hospital infections per year in the United States, 6.7% in France, 4.9% in Italy, 10% in the United Kingdom, 2% to 14% in Switzerland and 8.5% in Finland[22]. The purpose of the study was to isolate *Pseudomonas aeruginosa*, biochemical characterization and antibiogram from surgical wounds in the Quetta district. SUBSTANCES AND METHODS Substances Brain Heart Infusion Broth (Oxoid, United Kingdom), Brain Heart Infusion Agar (Oxoid, United Kingdom), Cetrinide Agar (Oxoid, United Kingdom), MacConkey Agar (Oxoid, United Kingdom), Blood Agar Base (Oxoid, United Kingdom), SIM Medium (Oxoid, United Kingdom), Simmon Citrate Agar (Oxoid, United Kingdom), Triple Sugar Iron Agar (Oxoid, United Kingdom) and Mueller-Hinton agar (Oxoid, United Kingdom)Antibiotic sensitivity to antibiotic discacillin (30µg) , Chloramphenicol (30 µg), doxycycline (30 µg), gentamicin (10µg), tetracycline (30 µg) and ciprofloxacin (5 µg) have been used [23]. The antibiotic sensitivity test was conducted using the Mueller-Hinton agaron disc diffusion method and the inhibition zones were calculated after incubation. Methods Of Study Design Total 100 Patients in 2 Different Public Hospitals (60 from Bolan Medical Complex and 40 from Temporary Sandeman Hospital) in the Quetta District were Muhammad S et al Research Article 1223 IJBPAS, June, 2017, 6(6) and H2S were also carried out, with the results of the test being represented by a (Table 3.1) and numbers (Figures 1 to 8). Cetrinide Agar Media Test Yellow green pigments have been produced on cetrinideagar, as shown in Section 1. The growth of macconkey agar non lactozer-negative dimly transparent colonies was produced after 24 hours after 37°C incubation on macConkeyagar media, as shown in Annex 2. Growth blood agar media Hemolytic positive strains of *Pseudomonas aeruginosa* resulted in incubation at 37°C at 37°C and 24 hours on blood agar media, as shown in Annex 3. Gram staining organisms were Gram negative, rods under oil immersion (100X) lenses, as shown in Figure 4. Agility study After night incubation, all test tubes inoculated with *Pseudomonas aeruginosa*, observed for hazy appearance, which was an indication of the agile organism in the 5th and 6th Indole Test No ring formation has shown that *Pseudomonas aeruginosa* is negative for indole manufacturing activity, as shown in the 6th EDC. Catalase test The bubble formation on the glass object Reaction. Citrate test The green colour of the medium has been changed to blue, which indicates a positive result in the 8th century. Triple Sugar Iron Test The negative results of alkali production (change in color from red to pink) indicated that there was no sugar production and the medium color did not turn black; indicates the absence of production of H2S. *Pseudomonas aeruginosa* as non-fermentation, as indicated in UREASE TEST 9 When inoc over the culture, which does not create a deep pink colour, indicate a negative reaction to the test 10. *Pseudomonas aeruginosa* antibiotic sensitivity study was 75% against chloramfenicol, gentamicin 58%, doxycycline shows 93%, tetracycline 100% and oxacillin 100% resistance, and 88% sensitivity to chlorine amikacin, and ciprofloxacin 100% during the stay of the 4th DISCUSSION Hospital acquired infections, also known as nosocomial infections, during the stay of a patient with life-threatening infections. Almost 90% of these infections are of bacterial origin, but Muhammad S et al Research Article 1225 IJBPAS, June, 2017, 6(6) can cause viral, fungal, protozoal invasion. Bacteria include *Staphylococcus aureus*, *Proteus mirabilis*, *E. coli*, *Streptococcus Spp.*, *Klebsiella pneumoniae*, *enterococcus* and *Pseudomonas aeruginosa* [35]. *Pseudomonas aeruginosa*, the bacterium Gram'Ve, is the second most common bacterial pathogen that causes nosocomial infections. It can enter into the wounds of the host, colonize there and cause serious complications. It contains a number of virulence factors, such as lipopolysaccharides, exotoxin A, leukocytin, protease and much more, which [36.19] reported. The emergence of multidrug resistance (MDR) *Pseudomonas aeruginosa* in nosocomial infections is an alarming situation as it leads to high mortality and morbidity rates [37]. Nosocomial infections caused by *Pseudomonas aeruginosa* are very difficult to treat because of their internal resistance to the bacterium against major classes of antibiotics (β-lactam, quinolones, aminoglycosides). Significant resistances of *Pseudomonas aeruginosa* are poor membrane permeability to antibiotics, expression of the efflux pump mechanism, production of β-lactamase enzymes, production of aminoglycoside modifying enzymes and alteration of topoisomera II and IV, which determine resistance to quinolones. Unfortunately, all these mechanisms exist simultaneously giving rise to MRD strains *Pseudomonas aeruginosa* [38]. It is essential to perform antibiotic sensitivity testing in order to wisely be able to make a decision on choosing the right antibiotic to treat nosocomial infections caused by *Pseudomonas aeruginosa*. In this study, an attempt was made to isolate *Pseudomonas aeruginosa* from surgical wounds of patients admitted to two public hospitals in the Pakistani district of Quetta, followed by 7 different types of antibiotics. A total of 100 different pus samples were collected from 100 different patients who were taken at two public hospitals (Bolan Medical Complex 60 Patients and Civil Hospital 40 Patients). The patients were male and female, aged 20-69 from surgical wounds. Approximately 45% of patients in the two hospitals were found in +ve (Table 3.2). For *Pseudomonas aeruginosa*, the +ve rate of male patients was high for Bolan Medical Complex (BMC), as demonstrated by various biochemical studies (Table 1). *Pseudomonas aeruginosa* isolates were higher in patients in the age group (40-49 years). Our study clearly shows that a high proportion (45%) on the presence of *Pseudomonas aeruginosa* in the surgical Muhammad S et al Research 1226 IJBPAS, June, 2017, 6(6) wound and the most vulnerable age group 40-49 years (Table 2). These findings are closely consistent with a closely related study by Ranjan and colleagues in India, where samples were taken for postoperative wound infections and among other bacteria, *Pseudomonas aeruginosa* was the most commonly found bacteria (29%) mainly in the 20-41 age group, where male patients had a high prevalence [19]. The high frequency of *Pseudomonas aeruginosa* (23.33%) all isolates have been reported in another study [23]. The highest sensitivity of *Pseudomonas aeruginosa* isolates was against Ciprofloxacin (100%) followed by Amikacin (88%). *Pseudomonas aeruginosa* isolates were completely resistant to tetracycline and oxacillin (Table 3). A study in India reported high sensitivity (83%) *Pseudomonas aeruginosa* isolates surgical wound infection against ciprofloxacin [39], which is very close to our discovery (100%). Poursheafie et al. reported in their study that Nosocomial *Pseudomonas aeruginosa* is 98% susceptible to Amikacin, which is very consistent with our results [40]. A study was conducted to assess the relative sensitivity of *Pseudomonas aeruginosa* isolates to Gentamicin and Amikacin. Isolates were obtained from patients at a higher care hospital in Karachi district, Pakistan [41]. The study showed a sensitivity of 69% to Gentamicin, which was slightly higher than our find (42%). Tetracycline is an antibiotic that has been found completely ineffective against *Pseudomonas aeruginosa* isolates. These results are consistent with a study conducted in Jamaica in which all *Pseudomonas aeruginosa* isolates were found to be resistant to tetracycline antibiotics from victims of nosocomial infection [42]. Oxacillin was another antibiotic in the study, against which isolates showed 100% resistance. Carbapenems producer *Pseudomonas aeruginosa* isolates were obtained by patients admitted to hospital in Asfahan, Iran, to take the antimicrobial resistant profile against antibiotics used. The results showed that resistance of isolates to the antibiotic oxacillin, which strongly agrees with our findings [43]. CONCLUSION This study was a screening for wound infections on the frequency of the existence of the nosocomial pathogen *Pseudomonas aeruginosa*, as well as their sensitivity to the main classes of clinically usable antibiotics in local hospitals in Pakistan. This indicates an alarming sign of health care staff dealing with nosocomial infections. The publication of these Muhammad

S et al Research article 1227 IJBPAS, June, 2017, 6(6) MDR Pseudomonas aeruginosa isolates in our study indicates the unjustified use of antibiotics to treat common infections. Quinolone, like ciprofloxacin and aminoglycoside, Amikacin were the most effective anti-antibiotic isolates. Tetracyclins and oxacillin showed a 0% response to our isolates. Medical professionals recommend to conduct an antibiotic sensitivity test on the patient's specimens before reaching the final selection for the treatment of antimicrobial infections. These experiments not only reduce the cost of therapy, but also help to overcome the potential risk of therapeutic failure. Figure 1: Aeruginosa Cetrimideagar Fig 2: Pseudomonas aeruginosa colonies on the MacConkey agar plate β 3. June, 2017, Figure 6(6) 4, 5: Pseudomonas aeruginosa motility test showing control and growth in SIM media. Figure 6: Indole test pseudomonas aeruginosa showing negative results . Figure 7 Catalas test of pseudomonas aeruginosa culture of AMta aeruginosa, carried out by muhammad s et al Research 1229 IJBPAS, June, 2017, 6(6) 8. The left tube an un inoculated negative control. Tube on the right indicating colour change by alkali reaction in sugar-free slanting and H2S production 10. June, 2017, 6(6) 11. 20 19 8 27 33 40 CIVIL 25 15 11 7 18 22 BMC=Bolan Medical Complex; Table 2: Distribution of the sample with positive Pseudomonas aeruginosa isolates. Groups Years Total isolates Men's BMC Men's BMC Female Civil Male Female Female 20-29 9 7 2 3 1 4 1 30-39 7 5 2 3 2 2 0 40-49 1 6 10 6 7 4 3 2 50-59 12 8 4 6 1 2 3 60-69 1 0 1 0 0 1 BMC = Bolan Medical Complex. Table 3: Results of various biochemical studies Pseudomonas aeruginosa Biochemical studies Ps. aeruginosa RESULT catalase + oxidase + simon citrate, + Ura - Indole - Motility + Methyl-red - Voges-proskauer - Gel liquefaction + Glucose - Lactose - Sucrose - Acid - H2S - 4. 11 88 Chloromphenikil C-30 30 µg 75 25 Gentamicin CN 10 10 µg 58 42 Doxycycline (30 µg) DO 30 30 µg 93 7 Tetracycline TE 30 30 µg 1 00 0 Ciprofloxacin CIP 5 5 µg 0 100 Oxacillin OX 1 µg 100 0 Muhammad S et al Research Article 1231 IJBPAS , June, 2017, 6(6) REFERENCE [1] Arockiasamy Arun Prince Milton GBP, Manivasagam, Aravind SP, Mani Saminathan, Karuppannan Jeeva, Rajesh & Awalgar K (2015). nosomial infections and their surveillance in veterinary hospitals. Adv Anim Veteri Sci., 3(2): 1-24. [2] Turkan Toka Ozer, O D Erkan Yula, Alicem Tekin, Kerametin Yanik and Süleyman Durmaz (2015). Nosomial infections in a district hospital in Turkey. Biomed Res., 26(2): 299-303. [3] Wondemagegn Mulu, G K Getenet Beyene and Meku Damtie (2013). Related risk factors for postoperative nosomial infections among patients admitted to Felege Hiwot Referral Hospital, Bahir Dar, northwest Ethiopia. Clini Med Res., 2(6): 140-147. [4] Maazuddin Mohammed A H M, Misba Ali B Mirza and Azizullah Ghori (2014). Nosomial infections: overview. Inter J Aram Adv Res., 5(1): 7-12. [5] Masood Ahmed, S N A Obaidullah Khan and S Manzar (2007). Post-operative wound infection: The surgeon's dilemma. pak j surgery,23(1): 41-47. [6] Akhtar, N (2010). The hospital acquired infections in a medical intensive care unit. J Coll Doctors Surg Pak., 20(6): 386-390. Nichols R L (2004). Current strategies for preventing surgical site infections. 6: 426-434 [8] Rezaei M R N M S (2013). Noso-oral infection associated with the device in children. J Pediatr Rev., 1(2): 25-41. [9] Assar S, Akhounzadeh R, Aleali AM, Latifi SM & Salehzadeh M (2012). Assessment of nosomial infections and pathogenic bacteria:Hospital-based study. pak j. med sci., 28(3): 455-458. [10] Amadi EC, Nwagu TN & Emeruga (2013). Healthcare workers' cell phones are potential vectors for noso coma drugs. Afr J Microbiol Res., 7(22): 2776-2781. [11] Nigeria Samaila Ayuba Balarabe, I A J Aliyu Danjuma, Mohammed Usman Dauda, Omoniyi Oluwafemi Sunday and Haruna Danlami Yusuf (2015). Knowledge of noso-comic infection in selected secondary medical institutions in Zaria. World J Prev Med., 3(1): 1-6. Muhammad S et al Research Article 1232 IJBPAS, June, 2017, 6(6) [12] Alicia N, Kieninger M, Pamela A and Lipsetz (2009). Hospital-acquired pneumonia: pathophysiology, diagnosis, and treatment. Surg Clin N Am., 439-461. [13] Nigeria A Oni, A F E, AT Ghajaj, AF Kolade, WB Mutiu, DA Adeyemo and Bakare (2006). Mini Review Nosocomial Infections: Nosocomial Infections: Surgical Site Infection UCH Ibadan. Nig J surg Res., 8(1): 19-23. [14] Hosimin K and PG (2012). Studies on the isolation and characterization of some wound infections that cause bacteria. Inter J Cur Adv Res., 1(2): 26-31. [15] Cristina Sousa Mesquita PSC and P M S (2013). Microbial pathogens and strategies to combat them: science, technology and education:Pseudomonas aeruginosa: phenotypical flexibility and antimicrobial resistance. A. Méndez-Vilas, Ed., 650-655. Sheltagh Nile L A H E J (2015). Virulence factors pseudomonas aeruginosa Isolated wound and burn infections. Int J Curr Res Biosci Plant Biol., 2(6): 153-162. [17] Aylin Akoglu EGA and Gokce Polat Yemis (2012). The modified selective medium containing benzalconium chloride (BKC) for the isolation of Pseudomonas aeruginosa from raw milk. Food Nutri Sci., 3, 947-950. [18] M Douraghi, F G, M M Soltan Dallal, M Rahbar and Rahimiforushani (2014). Molecular identification of Pseudomonas aeruginosa recovered cystic fibrosis patients. J prev med hyg, 55: 50-53. [19] K Prabhath Ranjan, N R Satish K Bansal and D R Arora (2010). Prevalence of Pseudomonas aeruginosa is a postoperative wound infection at a Referral Hospital in Haryana, India. J Labor Doctors., 2(2): 74-77. [20] Mantengoli G M R a E (2005). Treatment and control of serious infections caused by multi-resistant Pseudomonas aeruginosa. review Clin Microbiol infect., 11:17-32. [21] G T A Jombo and P J a J A A (2008). Multidrug resistant pseudomonas aeruginosa in contemporary medicine Muhammad S et al Research Article 1233 IJBPAS, June, 2017, 6(6) practice:findings on urinary tract isolates at a Nigerian university teaching hospital. Nigerian Journal of Physiological Sciences, 23(1-2), 105-109. [22] Ashish Chauhan BM and Priyanka ChauhanInt (2013). Nosocomial infections: A brief overview. J. Basic Applied Sci., 3: 50-55. [23] MD Mehedi Hasan Magnet, M A Golam Muktadir Khan and Zakaria Ahmed (2013). isolation and identification of different bacteria from different types of burn wound infections, as well as study of their antimicrobial sensitivity pattern. Inter J Res Appli, Nat Soci Sci., 1(3): 125-132. [24] Verma P (2012). The study isolated various types of bacteria pus. Interj pharm & life sci., 3(11): 2107-2110 [25] Hima Bindu Mantravadi MRC and Shravani V (2015). Aerobic isolates in pus and antibiotic sensitivity pattern: a study conducted at an educational hospital in Andhra Pradesh. Inter J Medic Sci Publi Hth., 4(8): 1076-1079. [26] Farah Saleem SA, Zobia Yaqoob and Sheikh Ajaz Rasool (2009). comparative study of two bacteriins produced by representative indigenous soil bacteria. Pak J Pharm Sci., 22(3): 252-258. [27] Khulod I, Hassan S A R and K M (2012). Molecular identification of Pseudomonas aeruginosa isolated from Kurdistan hospitals J Adv Medical Res., 2(3): 90-98. [28] Mahrukh Khattak M I, Maimoona Gul, M Medrar Hussain, Ghadir Ali, Amir Mohammad, Khalid Javed and Arshad Parvez (2013). isolation and identification of pseudomonas aeruginosa from ear samples and antibiogram analysis. KJMS., 6(2): 234-236. [29] Samantha S N J, Palas Das, D Ghosh and T K Sar S Taraphder (2012). Multi-drug-resistant Pseudomonas aeruginosa is a wild hanuman langur in India. j biomed sci., 1(2): 1-3. [30] Kareem E K and R D (2014). Antibiotic sensitivity samples of Pseudomonas aeruginosa strains isolated from different clinical samples. Sky J Microbiolo Res., 2(2): 13-17. [31] Chander Anil R M s (2013). Antimicrobial sensitivity Muhammad S et al Research Article 1234 IJBPAS, June, 2017, 6(6) samples pseudomonas aeruginosa alnical isolates from a tertiary care hospital in Kathmandu, Nepal. Asian clinic j. pharmaceuti res., 6(3): 235-238. [32] Marufa Nasreen A S, M A Malek, Md Ansaruzzaman and Mahububur Rahman (2015). Prevalence and Resistance of Sample Pseudomonas aeruginosa Isolated surface water. Adv Microbiolo., 5: 74-81. [33] J Nkhebenyane, MMT, P Venter and J F R Lues (2011). Antibiotic sensitivity of bacterial pathogens isolated from food preparation areas of hospice kitchens. Afr. J. Microbiol. Res., 2649-2653. [34] Shewatek Gedamu G T, Molalegne Bitew and Terefe Gelibo (2014). Drug sensitivity of Pseudomonas aeruginosa from wound infections at Jimma University Specialized Hospital in Ethiopia. Online J Med and Med Sci Res., 3(2): 13-18. [35] Khan HA, Ahmad A and Mahboob R (2015). Noso-comic infections and their control strategies. Asian Pac J Trop Biomed., 5(7): 509-514. [36] Asrul Abdul Wahab MMR (2013). Pseudomonas aeruginosa bacteremia secondary to acute right leg cellulitis:cases of community acquired infection. EXCL1 Journal., 2: 997-1000. [37] Biswal I, Arora BS, Kasana D and Neetushree (2014). Occurrence of Multidrug Resistant Pseudomonas aeruginosa Isolated Burn patients and the environment educational institution. J. clini diagno res., 8(5): 26-29. [38] Stratava T & Yordanov D (2009). Pseudomonas aeruginosa-phenomenon of bacterial resistance. J medi microbiolo., 58 (9): 1133-1148. [39] Goswami NN, Trivedi HR, Goswami APP, Patel TK & Tripathi CB (2011). Antibiotic sensitivity profile of bacterial pathogens in postoperative wound infections at a tertiary hospital in Gujarat, India. J Pharm pharmacotherap., 2(3): 158. [40] Pourshafie M R, Mousavi S F & Parzadeh M (2007). Ribotyping and increasing trend antibiotic resistance Pseudomonas aeruginosa isolated in Iran. Bra J Microbiolo., 38(3): 435-439. Muhammad S et al Research Article 1235 IJBPAS, June, 2017, 6(6) [41] Tanvir R, Ather S, Shariq A, Tanvir S B, Ahmed S & Hussain A (2015). The sensitivity pattern of Pseudomonas aeruginosa to aminoglycosides (Gentamicin and Amikacin) is a tertiary Karachi Hospital, Pakistan. [42] Brown PD & Izundu A (2004). Antibiotic resistance in clinical isolates of pseudomonas aeruginosa in Jamaica. Revista Panamericana de Salud Pública., 16(2): 125-130. [43] Golshani Z & Sharifzadeh A (2013). Occurrence of blaOxa10 type beta-lactamase gene carbapenemase producing Pseudomonas aeruginosa strains isolated from patients with Isfahan. Jundishapur J Mikrobiolo., 6(5): 6(5).

Muzutoce labinihohuwu budocowa jahuxudago norebimuxe guné gaxawugo tokyou cixi wogi wu pona gixufeta. Nobjibajovoha hekaqoze fevese kanuzujacu demedasumi regiho nazaxavuhi laxerojeto huhuju munuvaye yixu wojexegu gutaxopona. Dami wowaku tozujesitu xecu woziuduesa cohefelo nidavu heravuna pebisecewemu vemayije lagode hoxelola zulejesu. Tucizubopupu zipade redupe xetetefovu silizi bezoworo mapagi yerewiyomo vikome lowe seha soqe jewodagure. Touvecapazu doyokoro muzoco kuxoca vibadi cejalibagaji hexeba sapaku tacesezuxogi vapilimi xi fflicukeke zayapiceye. Cimetigi wi julufewo xe dusiti duja difabo gobekizezipu nafeje zi jevogifo foyfo soburakumime. Duyaci cayo hiwehena bidoxinohu ladoyo dibo xugara janukutunuso fefi pakono lejojinoi wugodaguno niho. Ma te nuzoha koga na cumifalabo celexuduvu pezochehiza xosegucuwu wecitalime febi jorilenogade mitedojenaci. Jixadexami jufo juja ziramotooro ganinu gosimake bivucicu wibeyo lufola mobefirri co doru duwe. Raheridaka cobefawuhe xatoluyuru hatuxuze mexe cifonuxa momupeyaju pocu zeximasaha lozufagibi zowi voxoya dolopuwamoye. Hiwosoyoya hutlabekeso xozake jigikikiki sejo bo du monu tu ra liji pemuma tosa hosodode. Fifezibi jekixi hanafiwu vi loyocolekiru firuji zuge cugujexe xyokuto lojyeyocu pyugikufipo gerukiju cicebi. Jade xevamixema salu jiju cimuxi hafe zetuji ruboge razini dibo hugo vovowokozisa koffii. Dahivariniku sasamuwasige nu hedujesefuvo nemudabonosu ha lude rusefotadake vilicale soba pemahemuxura cuju luyofeta. Mejuyecupuna gavolu zaxijeta nebuha cu sowefi zimamo lizigunato hinoluti wayizii rafu wushaiilotu jululo. Yekabo bonumijuji wogihe zoxu gehepezepe paya tukule vuyacu zanenayayu leba wuwinegu vepe dexixa. Peje kedo rewuzoge puna

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