A RARE CASE OF SEPTICEMIA IN A IMMUNOCOMPROMISED PATIENT - MORGANELLA MORGAGNII - A SILENT KILLER

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Abstract

Morganella Morgagni is a gram positive anaerobic cocci .It is an uncommon cause of sepsis in elderly & immune compromised patients. Infection due to this organism is very rare. In our patient, Morganella Morgagni has been isolated from blood culture . Higher antibiotics were given according to culture & sensitivity.P atient recovered from illness and hence discharged in a stable condition.

Keywords: Morganella Morgagni, immune compromised, elderly, sepsis, silent killer

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1. Case Discussion

A 95 year old male who was bedridden for past 6 months with Diabetes Mellitus & Systemic Hypertension as comorbidities for past 3 years. He was diagnosed to have Parkinsonism 1 year back. He had cerberovascular accident (Right hemiplegia) 4 years back .Patient had multiple bed sores (Grade 1) & An ulcer in right great toe was admitted in medical ward for palliative and supportive care .

On Examination , Patient was conscious , oriented , afebrile. His Pulse rate was– 86 / min & regularin rhythm,Blood pressure – 130/90 mm of Hg measured in lying posture in left upper limb , CBG – 356 mg/dl , Respiratory Rate – 14 breaths / min . On systemic Examination , CVS – S1,S2 present,No murmurs. RS- Bilateral normal vesicular breath sounds heard & no added sounds . P/A - Soft, Non-tender & no organomegaly.On CNS examination , Right upper & lower limb power was 0/5,left upper limb and lower limb power was 5/5 , Plantar were extensor on the left side & flexor on the right side.

Investigations –

Hb- 11.5 g /dl , Tc – 23,500 cells /cu.mm

Neutrophills – 76 %, Lymphocytes -19% , Eosinophils -1% , Monocytes -4 %. Platelet - 3,48,000 lakhs. Serum urea -11 mg/dl , serum creatinine – 0.3, serum Na+ - 136 mEq/L , K + -3.7 mEq/ L , CRP -48 mg /dl , ESR - 30/45. Aerobic blood culture &urine culture revealed no growth.

Wound swab culture from right great toe ulcer showed scanty growth of **Staphylococcus Aureus & Proteus Mirabilis**

Anaerobic blood culture showed Significant growth of **MORGANELLA MORGAGNII ,.**

Patient was treated with Intravenous Imepenem for 14 days following which patient improvement symptomatically and discharged. On follow up ,total counts and CRP came to normal and repeat blood culture(Aerobic & anaerobic) revealed no growth.

2. Discussion

Morganella Morgagni is a gram negative bacilli found in environment & in intestinal tract of humans & mammals as normal flora. It belongs to tribe Proteeae of the family Enterobacteriaceae (other genera: Proteus & Providencia).It is an uncommon cause of community acquired infection, Urinary tract infection, sepsis, pneumonia, wound infection, endophthalmitis, pericarditis & Spontaneous Bacterial peritonitis.

Risk factors of Morganella Morgagni infection includes urinary tract or Hepato-biliary tract infections, exposure to drugs like ampicillin & other beta lactam antibiotics , diabetes mellitus ,advanced age , surgical procedures, perinatal exposure , abscesses or soft tissue infections following snake bite & other immune-compromised conditions.

It has the ability to produce **perinatal infections** like Chorio-amnitis, postpartum endometritis ,late onset neonatal infections, **musculoskeletal infections** like necrotizing fascitis, arthritis,cartilage damage, Post abscesses following snake bites ,Sepsis in immunocompromised & elderly patients,**CNS infections** like brain abscess , ecthyma gangrenosum-like eruptions and hemorrhagic bullae & rarely Tubo-ovarian abscess.

Morganella Morgagni are oxidase negative, catalase and indole positive gram negative rods on blood agar & Mac-Conkey agar. It ferments glucose & mannose but not lactose .They are motile, facultatively anaerobic & non-encapsulated organisms and they hydrolyzes urease & reduces nitrates . Diagnosis is by blood and urine culture. Treatment option includes Broad pectrum antibiotics like third generation cephalosporins , carbepenems & other drugs like Piperacillin-Tazobactum,Vancomycin, macrolides & aminoglycosides.

3. Conclusion

The suspicion of Morganella Morgagni infection to be considered in case of elderly diabetic patients . Early diagnosis and prompt treatment of this infection results in good prognosis, thereby reducing mortality and morbidity.

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