IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 17, Issue 3 Ver. 3 March. (2018), PP 31-32
www.iosrjournals.org

Coexistent Leptospirosis &Dengue Infection (A Rare Case Report)

Talib S.H.[1], Bhattu S.R.[2], Deshmukh Shridhar[3], Vyawahare Suraj[3], Dutt Shivam[3]
[1]Professor &Head, Department Of Medicine, MGM Medical College, Aurangabad- 431003, India
[2]Associate Professor, Department Of Medicine, MGM Medical College, Aurangabad- 431003, India
[3]Chief Residents, Department Of Medicine, MGM Medical College, Aurangabad- 431003, India
Corresponding auther:Talib S.H.

Abstract :*A Young Patient Presented With Acute Febrile Illness Having Concomitant Leptospirosis & Dengue Infection Is Reported & The Literature Briefly Reviewed. Coexistent Diagnosis Is Often Difficult Unless Serological Testings For Both The Conditions Are Undertaken.*

Keywords: *Leptospirosis, Dengue, Coinfections*

Date of Submission: 24-02-2018 Date of acceptance: 12-03-2018

I. Introduction

Leptospirosis And Dengue Are Endemic In Countries With Subtropical Or Tropical Climates And Have Epidemic Potential[1].It Is Important To Distinguish Leptospirosis From Dengue As Early Antibiotic Therapy In Leptospirosis Leads To A Favourable Outcome, While Dengue Has No Specific Treatment, Yet Early Recognition Is Vital For Close Monitoring And Careful Fluid Management. Leptospirosis, A Zoonotic Infection And Dengue, An Arthropod Born Viral Infection. Both The Conditions Often Present As Acute Febrile Illness, Characterised By Sudden Onset Of Fever, Headache, And Myalgia[2,3]. Despite The High Prevalence Of Both These Infections, Co-Infection Of Leptospirosis And Dengue Is Very Rare & Rarely Reported In Literature. We Present The Case Of Co-Infection With Leptospirosis And Dengue In A Young Male.

II. Case Report

A 32 Years Old Male Patient Was Admitted To MGM Hospital With Chief Complaints Of Fever With Chills Since 7 Days, Generalised Bodyache, Pain In Abdomen, Dry Cough And Black Coloured Stool Since 4 Days. There Was No History Of Burning Micturition, Hematuria, Nausea, Vomiting, Breathlessness, Hemoptysis, And Rash.On Initial Examination Patient Was Comfortable In Bed &Found To Have No Icterus, Cyanosis, Raised JVP, Petechial Haemorrhages/ Rashes Over The Body, Edema Feet, He Was Mildly Pale & Had No Signs Of Respiratory Inadequacy. Pulse Was 80/Min Regular, RR 22/Min, $Spo_2$98%,BP100/70 Mmhg. In Respiratory System, Left Lower Zone Minimal Basal Crepts Were Present.Theliver Was 3 Finger Palpable With Mild Tenderness Below The Right Costal Margin And Spleen 2 Finger Palpable Below The Left Costal Margin.On Same Day Of Hospitalisation In The Night Patient Had An Episode Of High Grade Fever With Mild Breathlessness For Which Symptomatic Treatment Was Provided. After 14 Hours Of Hospitalisation Patient's Condition Deteriorated With RR-34 Per Min., PR-110/Min, BP-100/70 Mmhg, $Spo_2$90% With Nasal O_2, Temperature 101 F And Patient Was Noted To Have Bilateral Excessivecrepts In Lower Zones, Tender Hepatomegaly, Hepatojugular Reflex Positive, Mild Ascites And Splenomegaly. Also Patient Had Bilateral Pedal Edema With Bilateral Conjunctival Suffusion. Laboratory Investigation On Admission Revealedhb-10.3 G/Dl, Platelet Count-113000/Cmm, TLC-5300/Cmm (N-87%, L-4%, M-85, E-1%, B-0%), Raised Creatinine 2.2mg/Dland Mildly Raised Liver Enzymes (Sr. Bili.-T-2.8 Mg/Dl, Direct-2.7 Mg/Dl, SGOT-126 U/L, SGPT-125 U/L, ALP-191 U/L), Peripheral Smear For Malaria Was Negative, Widal Test Was Negative And Dengue Igm ELISAWas Positive. Patient Was Shifted To ICU Andx Raychest Was Done Which Revealed Floppy Shadowsright Lower Lobe With Moderate Bilateral Pleural Effusion. Patient Was Taken On Non Invasive Ventilation For 4 Hours& Later Intubated And Put On Mechanical Ventilation And Started With IVAntibiotic Piperacillin Tazobactam &LevofloxacinAnd Other Supportive Therapy. On Day 2 Of ICU Admission Patients Condition Further Deteriorated With Drop Of Platelet Counts To 53000/Cmm, Urea 135 Mg/Dl, Sr. Creatinine 3.0 Mg/Dl, Bilirubin 6.1 Mg/Dl, Direct 5.1 Mg/Dl, SGOT 375 U/L, SGPT 137 U/L, ALP 300 U/L. Patient Was Taken On Peritoneal Dialysis. Owing To The Rapid Renal, Hepatic& Pulmonary Involvement Leptospirosis Was Considered & The ELISA Test Was Positive (Reactive) For Igm. Patient Despite Receiving Antibiotics Piperacillin Tazobactam & Levofloxacin, Fever & Symptoms Did Not Regress. Doxycyline Was Added &

Supportive Care Was Taken. After 7 Days Of Mechanical Ventilation, IVAntibiotics, Doxycycline, Patient Improved Clinically, Radiologically & Serologically. Patient Was Shifted To General Ward. A Diagnosis Of Coexistent Leptospirosis With Dengue Infection Was Made And Discharged On Day 14 With Normal Vital Parameters.

III. Discussion

Cases Of Dengue And Leptospirosis Are Seen Throughout The Year During The Monsoon & Are Endemic In Countries With Tropical & Subtropical Climates. In 2015, An Indian Study Revealed 1.7% Of Patients Who Presented With Acute Febrile Illness Found To Have Coinfection With Leptospirosis & Dengue[4].Finger Countable Cases Of Co-Infections Are Being Reported In The Literature From India[5,6,7]. The Clinical Manifestations Of Leptospirosis And Dengue Range From A Mild Self-Limiting Febrile Illness To A Severe And Potentially Fatal Illness Characterized By Thrombocytopenia, Bleeding, And Hepatitis With Cholestatic Jaundice, Myositis And Renal Failure. The Vast Overlapping Spectrum Of Symptomatic Manifestations Of Dengue And Leptospirosis Makes The Clinical Diagnosis Challenging For Treating Physicians When Acute Co-Infection Is Present.The Coexistent Infection May Bear Importance That The Severity Of The Disease May Carry A High Mortality Rate. Early Recognition, Early Administration Of Appropriate Antibiotic Will Reduce The Dreaded Complications & Mortality Significantly.

References

[1]. Pan American Health Organization (2000) Case Definitions: Dengue And Leptospirosis. Epidemiol Bull. Available At: Http://Www.Paho.Org/English/Sha/Be_V21n2-Cases.Htm. Accessed 7 July 2015

[2]. Joseph MV, Longo DL, Kasper DL Et Al. Leptospirosis. Harrison's Principles Of Internal Medicine, 18th Edition. New York, USA. Mcgrawhill Professionals 2011; 1: 1392-6. 3.

[3]. Clarence JP. Infections Caused By Arthropod And Rodent Born Viruses. Longo DL, Kasper DL, Jameson JL Et Al. Harrison's Principles Of Internal Medicine, 18th Edition. New York, USA. Mcgraw-Hill Professionals 2011; 1: 1617-32.

[4]. Kumar A, Balachandran V, Dominic A, Dinesh KR, Karim S, Rao G. Serological Evidence Of Leptospirosis And Dengue Coinfection In An Endemic Region In South India. Ann Trop Med Public Health. 2012;5:286–290. Doi: 10.4103/1755-6783.102012.

[5]. Levett PN, Branch SL, Edwards CN. Detection Of Dengue Infection In Patients Investigated For Leptospirosis In Barbados. Am J Of Tropical Medicine And Hygiene 2000; 62 (1): 112-4. 5.

[6]. Rele MC, Rasal A, Despande SD Et Al. Mixed Infection Due To Leptospira And Dengue In A Patient With Pyrexia. Indian Journal Of Medical Microbiology 2001; 19 (4): 206-7.

[7]. KA Chopdekar, SS Patil, SP Lilani, & Et Al, Concomitant Leptospirosis And Dengue Infections, JIACM 2014; 15(3-4): 258-59.

Talib S.H "Coexistent Leptospirosis & Dengue Infection "IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 17, no. 3, 2018, pp 31-32