



## LEPTOSPIROSIS SPECTRUM: ASYMTOMATIC TO FULMINANT MULTIPLE ORGAN FAILURE

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## KEYWORDS :

## INTRODUCTION

Leptospirosis is a rare bacterial zoonotic infection which human get from animals. Leptospira caused by bacterial of GENOUS: LEPTOSPIRA ORDER: SPIROCHETE FAMILY: LEPTOSPIRA INTERROGANS spread through urine especially from dog, rodent and farm animals. They may not have any symptom but they can be carriers. Leptospira bacteria resides in kidney. Its life cycle ends in soil and water through urine. If life cycle ends up in soil or water where infected animals has peed, bacteria can invade human body through breaks in human skin, scratches, open wound and dry areas. They can enter through human nose, mouth and genitals. It is hard to get it from another human though it can be passes through sex and breast feeding. It is characterized by broad spectrum of clinical manifestation varying from asymptomatic infection to fulminant fatal disease.

In **mild** form it has nonspecific symptom such as fever, headache, myalgia.

In **severe** form it has symptom like Jaundice, renal dysfunction, haemorrhagic diathesis This severe form is known as **WEIL'S DISEASE**.

## CASE PRESENTION

52 year old female KANUBEN from lower socio economical status resides near **chandola lake AHMEDABAD**. She came with chief complaint of high grade fever with chills and rigor, generalized bodyache, weakness, headache, multiple joint pain, throat pain for 5 Days in month of December 2017. Patient was relatively asymptomatic before 5 days. She developed fever with chills and above mentioned symptoms not relieved by medication; gradually developed yellowish discoloration of eye, urine and skin. No significant past history of hypertension, tuberculosis, bleeding disorder except past history of hysterectomy.

## GENERALEXAMINATION

**Temperature**: 99 degree F

**Pulse**: 98 per minute regular in right radial artery with normal force, volume, tension.

**Blood pressure**: 110 systolic and 70 diastolic in right brachial artery in supine position.

Patient was conscious oriented and vitally stable

Eye: icterus present. Mild conjunctival haemorrhage.

## SYSTEMIC EXAMINATION

**Cardiovascular**: S1 S2 present. no murmur.

**Respiratory**: bilateral air entry present clear. no rhochi no crepitation.

**Abdominal**: soft non tender.

## INVESTIGATION

**Malarial parasite by paracheck**: negative

**Dengue IgM(rapid)**: Negative

**Leptospira igM(rapid)**: positive

HERE REPORTS WERE IMPROVING FROM 27/12/17 AND WAS VITALLY STABLE

	20/12/17	22/12/17	24/12/17	27/12/17	29/12/17
<b>HB</b>	10.8	9.73	8.62	8.86	8.10
<b>TOTAL COUNT</b>	12800	12100	20300	20800	17960
<b>PLATELET COUNT</b>	24900	36900	24000	101000	157000
<b>UREA</b>	96	109	131	81	68
<b>CREATININE</b>	1.52	2.42	2.51	1.48	1.18
<b>SGPT</b>	48	57	37	26	32
<b>ALKALINE PHOSPHATASE</b>	96	104	101	103	96
<b>BILIRUBIN TOTAL</b>	1.43	16.04	27.59	31.34	12.48
<b>BILIRUBIN DIRECT</b>	1.13	2.42	20.70	24.20	10.10
<b>Na</b>	141	137	140	138	140
<b>K</b>	3.1	3.4	3.4	2.9	3.8
<b>PT</b>			10.7	10.7	11.5
<b>INR</b>			0.88	0.882	.94
<b>APTT</b>			25.4	25.5	23.8

Her residential area has rodents mainly rats

Sample has sent to NCH SURAT 27/12/17 for diagnosis

**27/12/17 IGM LEPTOSPIRA**: Positive ELISA

**28/12/17**: MAT POSITIVE

**ULTRA SONOGRAPHY OF ABDOMAN AND KIDNEY URETER BLADDER**: Bright echogenicity, bilateral kidney increased echogenicity and bilateral CMD preserved

**Chest x ray**: No significant changes present

PATIENT HAS DIAGNOSED AS SEVERE LEPTOSPIROSIS COMPLICATED BY ACUTE HEPATIC FAILURE AND ACUTE KIDNEY INJURY OFTEN REFERRED AS WEIL'S DISEASE SUGGESTIVE OF MULTIPLE FULMINANT ORGAN FAILURE.