Rare presentation of Atypical Pneumonia

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10 year old female child treated in Jan 2011
- Fever with cough 5 days
- Without breathlessness
- i.m cefotaxime and genta as O.P x 5days
- Child afebrile for 1 week
Symptom continuum

- Again developed fever
  Investigated
- Widal – O and H- 1/160 positive
- MAT for leptospirosis-1 in 100 positive
- CXR- left lower zone haziness
- Treated with CP and Clox for 1 week
- Asymptomatic – 1 week
X-Ray chest showing left lower zone haziness-
29.1.2011 & 10.2.2011
Symptom progression

- Developed unsteadiness of gait
- Breathlessness of acute onset
- MRI brain- hyperintense focus in left thalamus in T2 suggestive of ischaemia
- Diagnosis – post infectious cerebellitis
- Treated with inj ceftriaxone, CP and inj methyl prednisolone
- Discharged after 10 days
- At discharge patient improved but still had unsteadiness
MRI brain - hyperintensity left thalamus
Clinical features

- 1 week later developed chest pain, breathlessness and palpitations and presented at ISP
- O/E- febrile, dyspneic, HR- 130/min, RR- 44/min, B.P- 100/60. papular lesions with crusting in the angle of mouth
- RS - VBS diminished in Lt infra axillary & infra scapular areas
- CNS- B/L cerebellar signs
  - Dysdiadochokinesis
  - Past pointing
  - Ataxic gait
Investigations - march -2011

- CBC- neutrophilia, ESR-5/12 mm/hr
- CRP- 12 mg/dl, ASO-97 IU/L, CPK-86 IU/L
- CXR- cardiomegaly, left middle and lower zone non homogenous opacity
- Mx-negative sputum AFB-negative
- Blood culture- CONS grown
- Urine culture- E.Coli grown > 1 lakh colonies
- ECG- suggestive of myocarditis
Rpt CXR - persistent left lower zone haziness -
11.3.2011 & 16.4.2011
Investigations - cont...

- ECHO- global hypokinesia
  - severe LV systolic dysfunction
  - mild MR
  - EF 34%
- CT chest- collapse of left lower lobe with cystic changes
CT chest- bronchiectasis, left lower lobe-April 2011
Differential diagnosis
chronic pneumonia, ataxia, myocarditis

- Viral- coxsackie, echovirus, varicella, measles,
- Bacterial- H. influenza, M. tuberculosis, salmonella,
  * Atypical org - mycoplasma pneumonia, chlamydia, legionella,
Investigations

- Serology- coxsackie- negative
- Sputum for legionella- negative
- Urine for legionella antigen- negative
Treatment

- Azithromycin – 10mg/kg on D1
  f/b 5mg/kg for 4 days
- Rifampin – 15mg/kg 10 days
- Steroids -14 days
- Warfarin x 3 days
- F/b Aspirin-75 mg od
- Enalapril -1.25 mg bd
Follow up

- Monthly review
- Clinical examination- cerebellar signs improved
- Echo
  - EF has improved from 34 % to 52% now
Discussion

- Episode of pneumonia did not respond to routine antibiotics
- Progressed to chronic pneumonia, CNS and cardiac manifestations
- No h/o similar illness in family
- Evaluated and no specific etiology identified
- Clinically diagnosed as legionella pneumonia because of acute onset & toxicity and treated.
- Patient improved symptomatically
<table>
<thead>
<tr>
<th></th>
<th><strong>LEGIONELLA</strong></th>
<th><strong>MYCOPLASMA</strong></th>
<th><strong>CHLAMYDIA</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>&gt; 4 Yrs Rare in healthy children</td>
<td>&lt; 3 Yrs URI 4-15 yrs pneumonia</td>
<td>&lt;6yrs- 15% &gt;6yrs- 20%</td>
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<tr>
<td><strong>Symptoms</strong></td>
<td>Cough, chest pain, dyspnea, fever, headache</td>
<td>COUGH</td>
<td>Cough , fever, malaise</td>
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<td><strong>Onset</strong></td>
<td>Acute</td>
<td>Insidious</td>
<td>Insidious</td>
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<tr>
<td><strong>Presentation</strong></td>
<td>Toxic, multi system disease</td>
<td>Walking pneumonia</td>
<td>Mild constituiational symptoms</td>
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<td>Other Signs</td>
<td>Diarrhea</td>
<td>Bullous myringitis</td>
<td>20% co-infected with mycoplasma</td>
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<td>Confusion</td>
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<td>Low Na, PO₄</td>
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<td>Abnormal LFT, RFT</td>
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<td>Extra pulm.</td>
<td>Encephalitis</td>
<td>Skin- urticaria, SJ syndrome</td>
<td>Encephalitis</td>
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<td>renal failure,</td>
<td>CVS- CCF, Arrhythmias</td>
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<td>CNS- encephalitis, GBS, ATM</td>
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<td>Aplastic/ hemolytic anemia</td>
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<td>Diagnosis</td>
<td>Culture - BCYE media</td>
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<td></td>
<td>Antigenuria</td>
<td>Ag in sputum</td>
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<td>IF- ab</td>
<td>Cold agglutinin</td>
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<td>Treatment</td>
<td>Macrolides</td>
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<td>Rifampin</td>
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Thank you