

# #368: Successful Treatment of Resistant Visceral Leishmania with Repeated Trial of Liposomal Amphotericin B- A Case Report

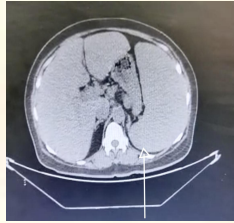
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## Introduction

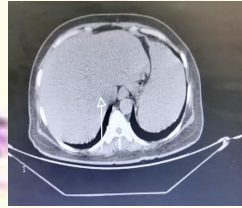
Zoonotic tropical disease, caused by *Leishmania donovani* Infection broadly classified into 3 categories: 1)Cutaneous leishmaniasis 2)Muco-cutaneous leishmaniasis 3)Visceral

## Case report

- 50 year old female- recurrent fever, mild intermittent abdominal discomfort, generalized weakness for one month
- O/E: spleen palpable 8 cm below the left costal margin
- CBC: **pancytopenia**
- **CT Abdomen: massive splenomegaly (23 cm) with mild hepatomegaly**
- **Leishmania Immunoglobulin G: positive. BM biopsy** revealed hyperproliferative marrow with plasmacytosis (12-15%). LD bodies negative
- **Treatment:** IV liposomal Amphotericin B (3 mg/kg) for 7 days
- **3 months later:** continuous fever, lethargy, running nose, and palpitations three months later. **Severe pancytopenia + positive Leishmania anti- rk39 antibody**
- **Treatment:** Lip Amp B Regimen -3 mg/kg dose on days 1 to 5, followed by the 6th dose on Day 14, followed by the 7th dose on Day 21 as per the FDA approved regimen



Splenomegaly



Hepatomegaly

TLC	1800/mm3
ANC	410/mm3
Hb	7 g/dl
Plt	80,000/mm3

During admission

## Follow up

- The patient recovered well and followed outpatient.
- The spleen is non palpable on physical examination
- **Lab results during the most recent visit:**

TLC	4800 /mm3
ANC	2600 /mm3
Hb	10.8 g/dl
Plt	180,000 / mm3

## Discussion

- Visceral Leishmaniasis is **endemic in 75 countries across Asia, Africa and the Americas**. India accounted for 18% of the global burden of kala-azar in 2020<sup>1</sup>
- The disease usually follows a **chronic, relapsing course** and is accompanied by high mortality especially if left untreated
- **Treatment - challenging** due to the long duration of treatments and toxicity of most drugs
- **Amphotericin B** - carries excellent cure rates but is highly toxic.
- **Other drugs-** are pentavalent antimonials (Sodium stibogluconate and meglumine antimoniate), Amphotericin B, Miltefosine, Paromomycin, Pentamidine, Sitamaquine, Azoles and various combination therapies
- Liposomal preparations: minimize adverse effects. Lower rate of recurrence <sup>2</sup>
- **Single dose preparations** (10 mg/kg total dose)- cost effective, equally efficacious <sup>3</sup>
- **Relapsed case- (preferred treatment)** US FDA approved regimen- (Dose-3 mg/kg on days 1–5, 14, and 21, for a total dose of 21 mg/kg)