

# Evaluation of Adverse Effects of Sodium Stibogluconate in the Treatment of Visceral Leishmaniasis (Kala-Azar)



Dr. Md. Abdus Sattar Miah <sup>1</sup>

Dr. A R M Saifuddin Ekram <sup>2</sup>

Dr. Md. Azizul Hoque<sup>3</sup>

Dr. Md. Abdus Salam <sup>4</sup>

Dr. A B M Saiful Alam <sup>5</sup>

Dr. Md. Zahirul Haque <sup>6</sup>

Prof. A K M Rafiqueuddin <sup>7</sup>

# Objectives

- To evaluate the adverse effects of sodium stibogluconate in the treatment of Visceral leishmaniasis.**

# Research design and method

## ■ Study type

Descriptive cross sectional study.

## ■ Study place

Department of Medicine, Rajshahi Medical College Hospital.

## ■ Study population

All patients with visceral leishmaniasis admitted into Rajshahi Medical College Hospital during the study period.

## ■ Sample size

30 who fulfilled the inclusion and exclusion criteria.

## ■ Results

- Out of 30 patients, 19 patients (63.33%) developed abnormalities in ECG, among them 14 patients (46.67%) developed prolonged QTc, 6 patients (20%) developed T-wave inversion and 1 patient (3.33%) developed transient first degree heart block. No patient developed symptomatic arrhythmia.



# ■ Results

- Five patients (16.67%) developed transient rise of bilirubin, 11 patients (36.67%) developed raised SGPT. None of them developed clinical hepatitis.
- 23 patients (76.67%) developed raised serum amylase but none developed clinical pancreatitis.
- There was no change in renal function. No adverse effects were noted on complete blood count.

## ■ Discussion

- Studies in India and Africa have reported frequent adverse cardiac events among patients, treated for VL using  $Sb^v$  cardiac toxicity was not observed among 96 American military personnel with predominantly CL who were treated with pentostan<sup>TM</sup> formulation of  $Sb^v$  .

## DISCUSSION

- In this study, abnormalities developed in the ECGs of 19 (63.33%) patients. These were asymptomatic in all patients. We also observed among the whole study group that there was prolongation of QTc interval in 14 patients (46.67%). No patient developed clinically any obvious arrhythmia. But we cannot exclude the possibility that any of these asymptomatic patients had silent arrhythmias; continuous 24 hour ECG monitoring would have been required to investigate this.



## ■ Conclusion

- Sodium stibogluconate can be used safely in Kala-azar patients with adequate monitoring.
- Identification of factors before and during treatment that may increase the risk of QTc prolongation and arrhythmia is important for prevention of deadly complications.

**1. Dr. Md. Abdus Sattar Miah**

MD (Internal Medicine)

Final Part Student

Session: July, 2007 - June, 2009.

Department of Medicine

Rajshahi Medical College, Rajshahi.

**2. Dr. A R M Saifuddin Ekram**

FCPS (Medicine), FACP, PhD, FRCP

Professor (C.C.) and Head,

Department of Medicine

Rajshahi Medical College,

Rajshahi.

**3. Dr. Md. Azizul Hoque**

MD (Internal Medicine)

Associate Professor,

Department of Medicine

Rajshahi Medical College

Rajshahi.

**4. Dr. Md. Abdus Salam,**

MSc, PhD

Associate Professor,

Department of Microbiology,

Rajshahi Medical College

Rajshahi.

**5. Dr. A B M Saiful Alam**

FCPS (Medicine)

Assistant Professor

Department of Medicine

Rajshahi Medical College

Rajshahi.

**6. Dr. Md. Zahirul Haque**

FCPS (Medicine)

Assistant Professor

Department of Medicine

Rajshahi Medical College

Rajshahi.

**7. Prof. A K M Rafiqueuddin**

Professor and Head,

Department of Medicine

Enam Medical College, Savar

Dhaka.



**THANK YOU**