

## **Electrocardiographic changes during treatment of leishmaniasis with pentavalent antimony (sodium stibogluconate).**

### **Abstract:**

Serial electrocardiograms (ECGs) were obtained during 65 courses of sodium stibogluconate treatment in 59 Kenyan patients with leishmaniasis (56 visceral and 3 cutaneous). ECG abnormalities developed during 54% of the treatment courses. The frequency with which abnormalities occurred was related to the total daily dose of antimony (Sb), increasing from 2/9 patients treated with 10 mg Sb/kg/d to 25/48 treated with 20-30 mg Sb/kg/d and 8/8 treated with 40-60 mg Sb/kg/d. The frequency with which ECG abnormalities developed was also related to the duration of treatment, increasing from 11/65 patients after 7 days to 18/44 after 15 days, 26/39 after 30 days and 11/12 after 60 days. ECG abnormalities were similar to those previously described during treatment with trivalent antimonial drugs, the most common being flattening and/or inversion of T waves. Prolongation of the corrected QT interval occurred in 13 patients, all of whom were treated for more than 30 days or with more than 20 mg Sb/kg/d. One patient died suddenly during the fourth week of treatment with 60 mg Sb/kg/d, and 2 patients died of measles after 9 or 10 days of treatment with 30 mg Sb/kg/d. QT prolongation and a concave ST segment developed in all 3 patients who died. We conclude that minor ECG abnormalities are common when sodium stibogluconate is used at doses above 20 mg Sb/kg/d for more than 15 days, and that life-threatening arrhythmias may occur if very high doses are used.