An unusual presentation of Calotropis poisoning

I Medical unit

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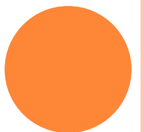
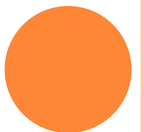
A 55 year old male admitted with alleged history of consumption of calotropis milk poison

Present History:

- Alleged history of consumption of Calotropis milk poison around 15 ml 2 days ago and the patient was initially treated in virudhunagar GH and referred to GRH Madurai for further Management
- H/o sore throat
- H/o palpitation
- H/o pre-syncope and syncope



- No H/o chest pain
- No H/o breathlessness
- No H/o Burning eyes
- No H/o excessive salivation
- No H/o dyspepsia or regurgitation
- No H/o vomiting or diarrhoea
- No H/o high coloured urine
- No H/o Jaundice
- No H/o fever or Bleeding manifestations



- **Past History**

No H/o Coronary Artery Diseases/ Hypertension/ Diabetes mellitus/ Tuberculosis/ Bronchial asthma/ COPD/ Epilepsy/ Hypothyroidism

- **Personal History:**

Farmer by occupation

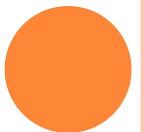
Smoker

Not an alcoholic

Tobacco chewer

- **Drug History:**

The patient is not taking drugs for any specific disease



General examination:

Patient is,

Conscious

Oriented

Restless

Afebrile

No Pallor

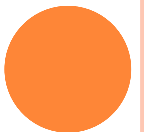
No Icterus

No Cyanosis

No Clubbing

No Gen lymphadenopathy

No Pedal edema



Vitals:

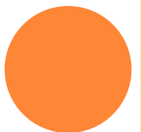
Pulse

- Rate 50/min
- Regular in rhythm
- Normal volume
- No special character
- Felt in all peripheries
- No R-R or R-F delay
- Condition of vessel wall: Normal

Blood pressure: 110/70 mmHg

Respiratory rate: 18/min

Spo2 : 97%



SYSTEM EXAMINATION:

Cardiovascular system:

S1 S2 heard

No murmur

Respiratory system:

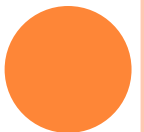
B/L Air entry +

NVBS +

No added sounds

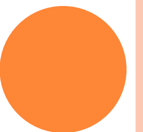
Abdomen: soft, No organomegaly

CNS: NFND



- Provisional Diagnosis:

A case of Calotropis poisoning with Bradycardia



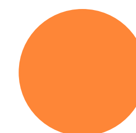
- Investigations:

Urine Examination

Sugar	**nil**
Albumin	Trace
Deposits	2-3 pus cells
RBC	negative

Com

Hemoglobin	12.3gm
Total count	8,900
Differential count	N 59/ L34/ Mx7
Esr	18mm
Platelet	2.6 lakhs
Pcv	39%



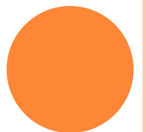
Blood sugar	102 mg/dl
Blood urea	42 mg/dl
Sr creatinine	1.1 mg/dl

Electrolytes

Sodium	137
Potassium	3.8
Calcium	9.2
Magnesium	2.0

LFT

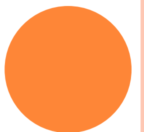
Total bilirubin	0.8
Direct	0.3
Indirect	0.5
SGOT	37
SGPT	38



Thyroid function test

TSH	3.4 mU/L
CPK MB	12 IU/L

Admission ECG shows:



II

Pat Malhoriya 55/M

TD

BPL CARDIART 6108T

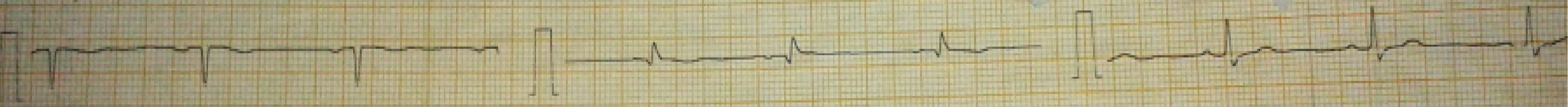
10mm/mV 25mm/sec ≈ 25Hz

BPL CARDIART 6108T

aVR

aVL

aVF



Pat TD

BPL

10mm/mV 25mm/sec ≈ 25Hz

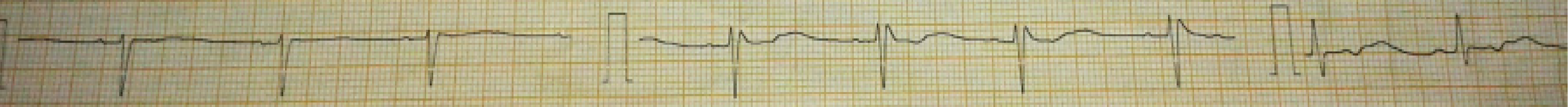
BPL CARDIART 6108T

10mm/mV 25mm/sec ≈

V1

V2

V3



Pat. TD

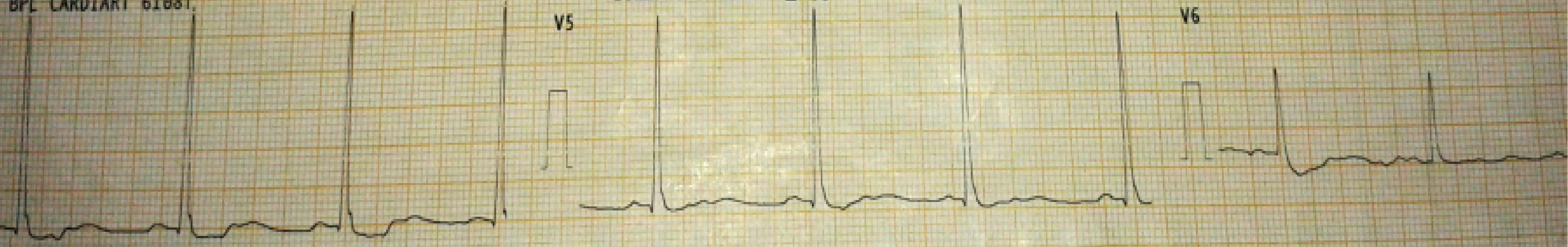
Pat. TD

CARDIART

BPL CARDIART 6108T

10mm/mV 25mm/sec ≈ 25Hz

BPL CARDIART 6108T



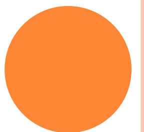
Heart rate: 54/min

Normal sinus rhythm

Normal axis

No ST- T changes

Impression: sinus bradycardia



Expert opinion:

- Cardiologists opinion was obtained

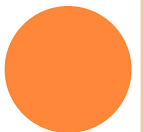
Suggested:

Serial ECG monitoring

Inj Atropine 1.2mg iv sos if PR< 60bpm

T.Orciprenaline 10mg tds

Review sos



- Treatment given:

NPO

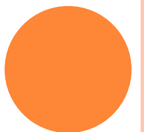
IV Fluids

Inj Atropine 1.2mg iv

(Acc to pulse rate)

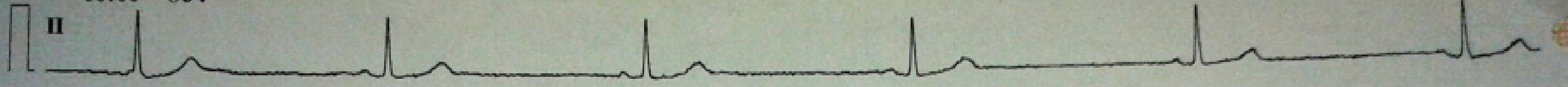
T. Orciprenaline 10mg tds

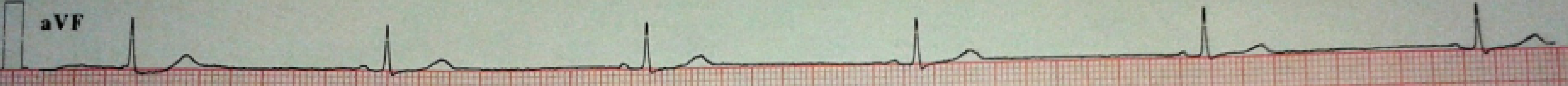
Serial ECG monitoring

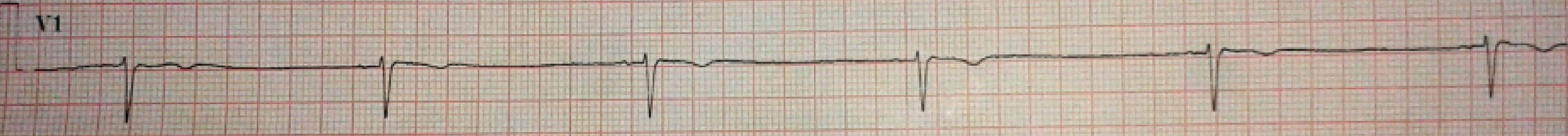


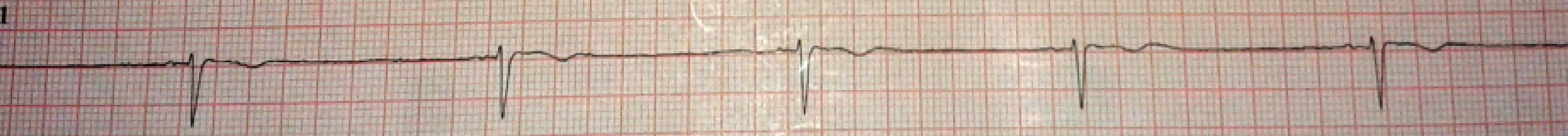
6hrs later ECG 2 shows,

8/8/17







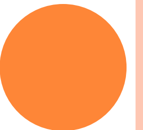


HR: 34/min

Normal Sinus Rhythm

Impression: Sinus bradycardia

? Sinus Node Dysfunction

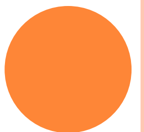


- Cardiology review

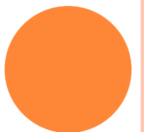
Suggested:

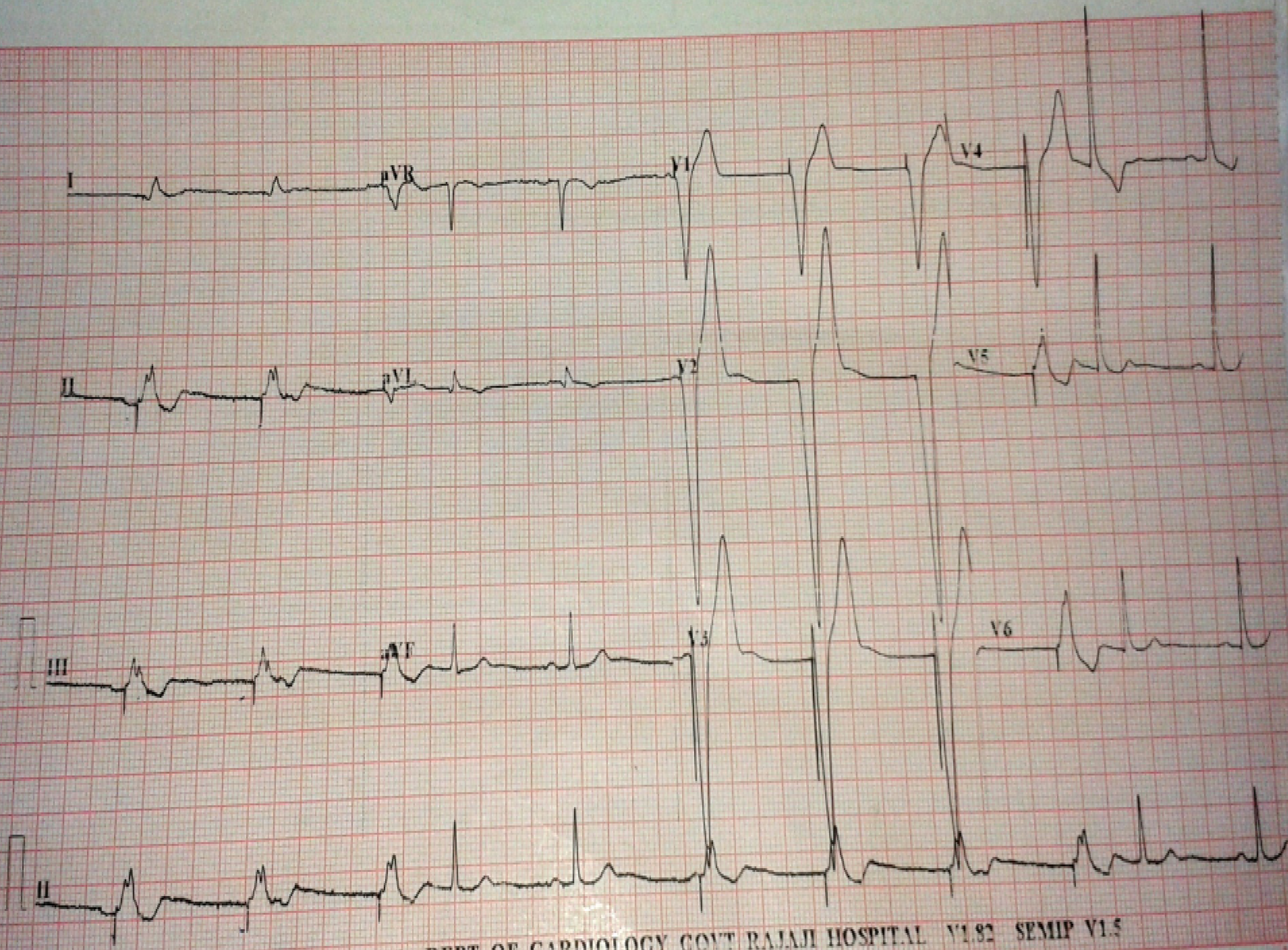
Diagnosis: Calotropis poisoning with Sinus Node Dysfunction

Plan: Temporary Pacemaker Implantation



- Under Strict Aseptic Precaution,
- TPI leads were placed in RV Apex through Right femoral venous approach and post procedure vitals were stable
- The ECG 3 after TPI shows



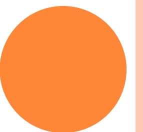

I
aVR
V1
V4
II
aVL
V2
V5
III
aVF
V3
V6
II
4*2.5s+1r DEPT OF CARDIOLOGY GOVT RAJAJI HOSPITAL V1.82 SEMIP V1.5

Pacemaker Rhythm

RV pacing

LBBB Morphology

With HR 60bpm



- Post procedure Echo:

TPI leads seen in RV apex

Normal chambers

Normal valves

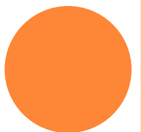
No RWMA at rest

NO LV systolic dysfunction

No LV clot

No pericardial effusion

LVEF 60%

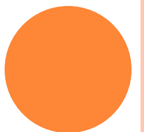


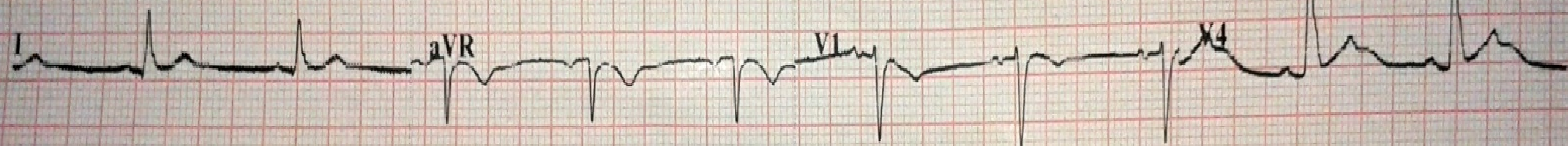
The patient was serially monitored..

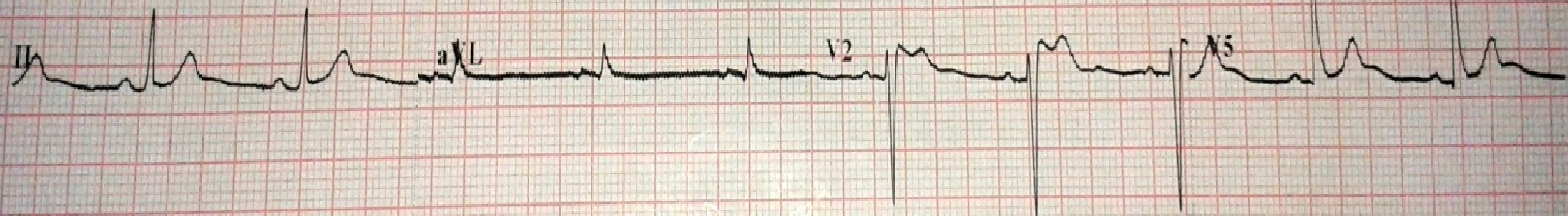
After 4 days,

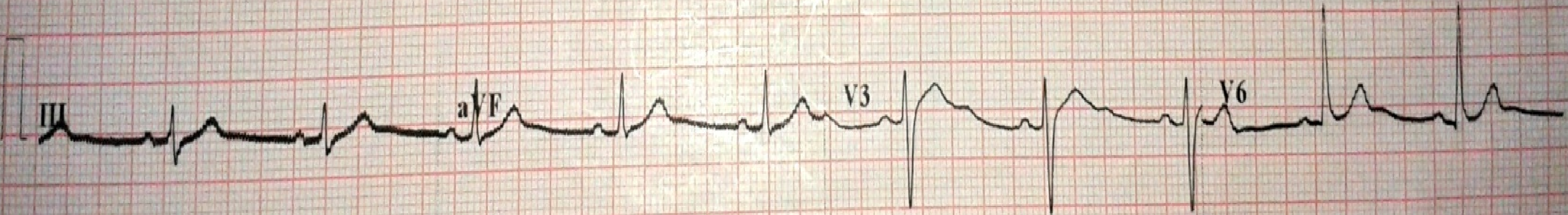
The patient conditions improved and the TPI was stopped temporarily and ECG was taken

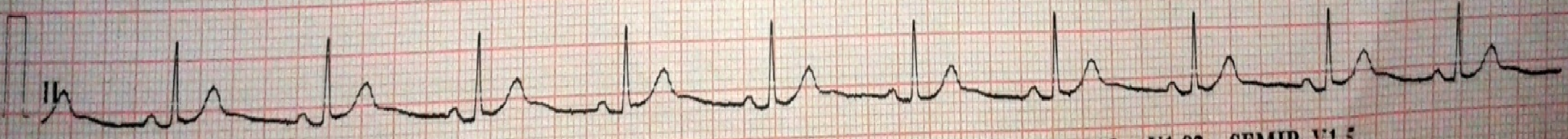
The ECG 4 shows,




I
aVR
V1
V4


II
aVL
V2
V5


III
aVF
V3
V6

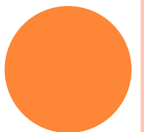

II

HR 60 bpm

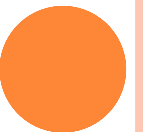
Normal Sinus Rhythm

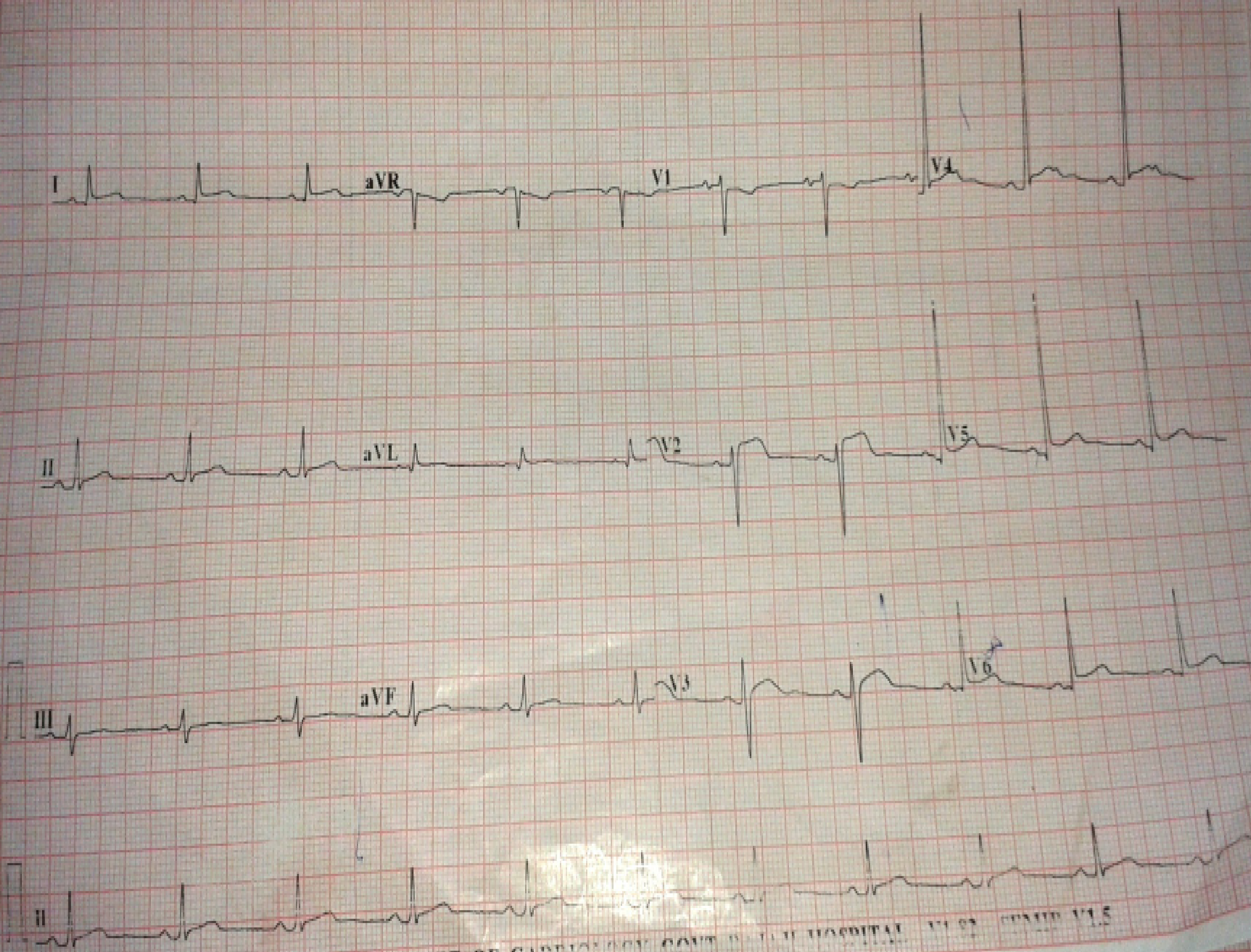
Normal Axis

No ST-T changes



- The TPI was removed and the patient was under serial ECG monitoring
- T.Orciprenaline 5mg tds
- ECG at Discharge on Day 6 shows,



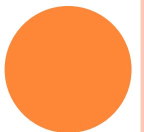

I
aVR
V1
V4
II
aVL
V2
V5
III
aVF
V3
V6
II

HR 70 bpm

Normal Sinus Rhythm

Normal Axis

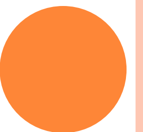
No ST-T changes



- Aim of presentation

A Unusual presentation of calotropis poisoning

with Cardiac manifestation



ETIOLOGIES OF SA NODE DYSFUNCTION

Extrinsic	Intrinsic
Autonomic	Sick-sinus syndrome (SSS)
Carotid sinus hypersensitivity	Coronary artery disease (chronic and acute MI)
Vasovagal (cardioinhibitory) stimulation	Inflammatory
Drugs	Pericarditis
Beta blockers	Myocarditis (including viral)
Calcium channel blockers	Rheumatic heart disease
Digoxin	Collagen vascular diseases
Ivabradine	Lyme disease
Antiarrhythmics (class I and III)	Senile amyloidosis
Adenosine	Congenital heart disease
Clonidine (other sympatholytics)	TGA/Mustard and Fontan repairs
Lithium carbonate	Iatrogenic
Cimetidine	Radiation therapy
Amitriptyline	Postsurgical
Phenothiazines	Chest trauma
Narcotics (methadone)	Familial
Pentamidine	SSS2, AD, OMIM #163800 (15q24-25)
Hypothyroidism	SSS1, AR OMIM #608567 (3p21)
Sleep apnea	SSS3, AD, OMIM #614090 (14q11.2)
Hypoxia	SA node disease with myopia, OMIM #182190
Endotracheal suctioning (vagal maneuvers)	Kearns-Sayre syndrome, OMIM #530000
Hypothermia	Myotonic dystrophy
Increased intracranial pressure	Type 1, OMIM #160900 (19q13.2-13.3)
	Type 2, OMIM #602668 (3q13.3-q24)
	Friedreich's ataxia, OMIM #229300 (9q13, 9p23-p11)