

Cardiac Manifestations Following Ingestion of Aconitum Species

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Background and Objectives : Preparation of Aconitum roots are prescribed for analgesic, anti-inflammatory, and neurologic indication. Potential hazards of these medicinal herbs are poisoning and occasional fatalities due to low safety margin. This study aimed to evaluate cardiovascular manifestations associated with aconitine poisoning. **Methods :** A retrospective survey was conducted of 22 patients with aconitine poisoning, who visited tertiary University hospital from 2000 to 2005. Variables included in data analysis were clinical features, cardiac enzyme levels, and ECG changes. **Results :** Ingestion to hospital arrival time was varied (range:1 hour to 23 hour, mean: 4.7 hour). Most common cardiac symptoms were chest discomfort(8/22, 36%), dizziness(8/22, 36%), chest pain(5/22, 23%), and palpitation(3/22, 14%). On the arrival, most of the patients were hypotensive(13/22, 59%, MAP: 66.1mmHg). The cardiac enzymes were elevated in 4 patients(4/22, 18%). The ECGs were abnormal in 21 of the 22 patients: Various findings beyond the normal range were as follows: sinus bradycardia, sinus tachycardia, atrial premature contraction, ventricular premature contraction, polymorphic ventricular tachycardia, tall broad p wave on lead II, ST segment depression and elevation on precordial leads, tall and peaked T waves, T wave inversion, right bundle branch block. Electrocardiographic findings are presented in table. **Conclusions :** Cardiac abnormalities were present commonly in the aconitine poisoning. It is important to public announcement to potential hazards of the injudicious use of these medical herbs.

EKG Findings	No. of Patients(%)	EKG Findings	No. of Patients(%)
Normal	21(95.5)	Polymorphic VT	2(9.1)
Abnormal	1(4.5)	P wave abnormality	2(9.1)
		ST segment depression	5(22.7)
Sinus bradycardia	5(22.7)	ST segment elevation	1(4.5)
Sinus tachycardia	3(13.6)	Tall and peaked T wave	5(22.7)
Multifocal Atrial tachycardia	1(4.5)	Inverted T wave	4(18.2)
Atrial fibrillation	1(4.5)	U wave	1(4.5)
Atrial premature contraction	8(36.4)	Left bundle branch block	1(4.5)
Ventricular premature contraction	10(45.5)	Right bundle branch block	5(22.7)
Junctional rhythm	3(13.6)	First degree AV block	2(9.1)

Effect of Acute Myocardial Infarction on Cardiac Nerve Sprouting in Human

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Background : Cardiac nerve sprouting was closely associated with ventricular tachyarrhythmia(VT), it has been known that plasma nerve growth factor(NGF) concentration reflected on nerve sprouting and the relationship between plasma NGF concentration and VT occurrence was reported in myocardial infarction(MI) animal models. The aim of this study was to investigate whether NGF is increased in MI or not and the relationship between plasma NGF concentration and VT occurrence in MI patients. **Method :** We regarded 10patients who VT was not induced with programmed electrical stimulation as normal control(NC) and 15patients with stable angina pectoris(SA),30 with acute MI(AMI) were enrolled.MI patients were subdivided into VT occurrence and non VT occurrence group according to the VT occurrence in hospital period.Plasma NGF concentrations were measured by enzyme-linked immunosorbent assay. **Results :** The plasma concentrations of AMI group were significantly increased compared with those of NC group(median(interquartile range),18.9(8.7) vs 10.3(12.5)pg/ml, $p<0.05$) and the patients with SA(18.9(8.7) vs 15.1(6.7)pg/ml, $p<0.05$).There was no significant in plasma NGF concentrations between NC and SA group.(10.3(12.5) vs 15.1(6.7)pg/ml, $p=0.18$). In AMI patients,there was no significant difference in plasma NGF concentrations between VT occurrence and non VT occurrence group(18.5(6.7) vs 21.2(10.2)pg/ml, $p=0.25$). **Conclusion :** The plasma NGF concentrations are increased in AMI patients compared with those of normal control and SA.

