

## P003 [ID#6]

### Digoxin Overdose in Hospitalized Cardiac Patients: Risk Factors and Prognosis

Abbas Aghabiklooei<sup>1</sup>, Shiva Madizadeh<sup>2</sup>

1. Toxicology service, Firoozgar Hospital, Iran University, Tehran, Iran
2. Faculty of Pharmacology, Azad University, Tehran, Iran

**BACKGROUND:** Digoxin most widely used for the treatment of heart failure and atrial fibrillation especially in old patients. Although, the relative frequency of digoxin overdose has been declined in recent years, unfortunately it seems that, digoxin toxicity is a major problem of morbidity and mortality in patients who received it in many countries. So, we aimed to determine the manifestation of toxicity and risk factors leading to overdose.

**MATERIAL AND METHODS:** We reviewed the medical files of 531 patients with heart disease who were on digoxin regimen (more than 2 weeks) and came to ED with a new symptoms or signs, in Firoozgar hospital for 5 years from 2011 to 2016, in Tehran-Iran. Clinical presentation of toxicity, electrocardiogram changes, serum level of digoxin, and leading factors of overdose were assessed.

**RESULTS:** There were 50 patients with digoxin toxicity with relative frequency of 10 percent. Male to female ratio was 2/3, with mean age of  $78 \pm 11.3$  years. The symptoms and signs of toxicity in patients with age over 65 were seen at serum digoxin level of 2.94 ng/ml vs 2.28ng/ml in those patients with age below 65 years. Kidney failure, liver diseases, hyponatremia, and hypothyroidism were the most common risk factors associated with overdose with 26, 24, 22, and 10 percent, respectively. Gastrointestinal manifestations were the most common presentation of overdose (40) followed by exacerbation of heart failure (18). The mortality rate was 4%.

**CONCLUSIONS:** Clinical Toxicity was found more common in women than men and those patients with age over 65, in spite of nearly equal serum level of digoxin. The most common leading causes of toxicity were kidney diseases. The rate of digoxin toxicity in our media was 10 fold in corresponding to developed west countries.