

## **Chest X-Ray Changes in Opiates Poisoning Patients**

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**Objective :** Intoxication with opiates is one of the most common causes of referring to emergency departments(ED) in Iran (1).Because respiratory signs are one of the most common and important signs in these patients, this study was designed to evaluate the changes in the chest x-ray of the patients. **Methods :** This study was cross sectional and prospective. The changes noted in the Chest X- Ray (CXR) of the patients who were intoxicated with opiates and had referred with respiratory and /or other signs of intoxication during the one year period between July 2007 till July 2008 to Farshchian Teaching Hospital in Hamadan, were studied. **Results :** Of 1698 patients referred due to poisoning with drugs and chemical agents, 318(18.72%) patients were admitted due to opiates intoxication. Out of these, 214 (67.29%) had respiratory signs. 84.1% were male and 15.9% were female. The average age was 35.6 years. The most important substance used was opium (57.5%).Most of the cases (84.1%) were due to abuse.As it is shown in (Table 1), the most common physical signs were: miosis (83.6%), respiratory distress (74.8%), rales & wheezing (67.3%) and the most prevalent positive diagnostic test was morphine test (positive in 82.2% of the patients) and the most common radiographic abnormality was pulmonary edema (14.5%).The most common substance causing pulmonary edema was methadone, revealing a significant statistical difference ( $p=0.001$ ). Sixteen patients (7.5%) died from complications. **Conclusion :** As expected, the most commonly used opiate in this province was opium, the most important complication was respiratory problems and the most significant radiographic abnormality was pulmonary edema. Thus due to the fact that death in these patients is usually caused by respiratory complications, we suggest that physicians working in the ED be well – trained in management of such patients. **Reference :** 1. Shahin Shadnia Hadi Esmaily Ghazal Sasanian Abdolkarim Pajoumand Hosein Hassanian-Moghaddam Mohammad Abdollahi.Human.Pattern of acute poisoning in Tehran-Iran in 2003.Human & Experimental Toxicology, Vol. 26, No. 9, 753-756 (2007).

Table 2: Clinical & Paraclinical findings of 214 hospitalized Patients with opiates consumption

<b>Clinical Findings</b>	<b>N (%)</b>	<b>Paraclinical Findings</b>	<b>N (%)</b>
<i>Miosis</i>		<i>Toxicological test</i>	
Yes	177(82.7)	Morphine(Mop)	153(71.5)
No	37(17.3)	Benzodiazepines(BZD)	7(3.3)
<i>Coma</i>		*THC	4(1.9)
Yes	35(16.4)	Mop + BZD	17(7.9)
No	178(83.9)	Mop+ Barbiturates	12(5.6)
<i>Rales &amp; Wheezing</i>		Mop+THC	4(1.9)
Yes	144(67.3)	Non	17(7.9)
No	70(32.7)		
<i>Respiratory distress</i>		<i>Chest X Ray</i>	
Yes	160(74.8)	Pulmonary edema	31(14.5)
No	54(25.2)	Pneumonia	5(2.3)
<i>Agitation</i>		Aspiration pneumonia	4(1.9)
Yes	90(42.1)	Pleural effusion	5(2.3)
No	124(57.9)	Aspiration pneumonia + Effusion	9(4.2)
<i>Hypotension</i>		Normal	160(74.8)
Yes	138(64.5)		
No	76(35.5)		
<i>Death</i>			
Yes	16(7.5)		
No	198(92.5)		

\*Tetra Hydro Canabinol