

الخلاصة

2007/12/12: | 2006/5/20:

(72)

10-4 48-18 Codeine
(40)

(1.72) T.S.B (%9.89) Hb% P<0.05

/3 (26.2) P<0.05 E.S.R mg/dl

3 / (8986) Total W.B.C
P<0.05

3 / (37.38) Netrophil Differential W.B.C

Lymphocyte 3 / (16.29) Monocyte

) 3 / (43.17)

Micronuclei (

(%2.8) Mitotic index(MI)

7,8-didehydro-4,5-epoxy-3-methoxy-N-methylmorphinan-6-ol
299.4 (C₁₈H₂₁No₃)

[7]

[2]

[3]

[8]

4-3

Oral

SC

(1)

IM

IV

[4]

[6]

(WHO)

Diarrhea

Cough

(Adjuvant)

[1]

Mild to

moderate pain

(Non opioid)

Aspirin

Paracetmol

Profene

(Weak opioid)

[8]

(Strong opioid)

60

CYP2D6

P450

[5]

(1)

Codeine

Codeine sulfate

[6]

Phosphate

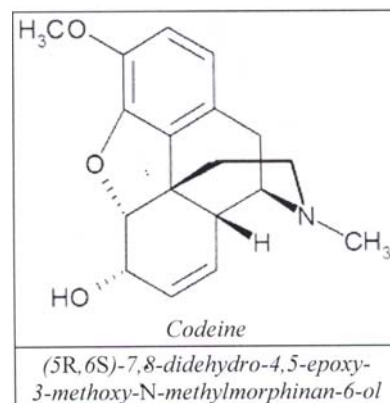
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Opium

(%2.5 -0.7)

[9]

[6] O-methylation



(EDTA)
(40)

:
(Turke's fluid)
[12]

Chromosomal aberrations
[10]
Micronuclei
(7,15,18)

[11]
Micronuclei

(10)
(100)

: (Hb)
(Cyanmethaemoglobin)
[12]

- :

450
[13]

(72) :

(Westergreens Method)
[14]

Codeine Phosphate
Cemo , Pulmocodine ,)
48-18 (Tussiram
(1)) 10-4
(5 -2)
(Syringes)

(5)

:
 (0.3)
 -1) (PHA)
 (1.5 (37) (Incubator)
 (65)
 (30) (71) :
 (PBS) (0.1)
 (1.45) (25)
 (Sorenson`s buffer)
 (10) (/ 1500)
 :
 (5-3) 0.75)
 : (37) ()
 37) (5)
 [15] (25) ()
 (0.1)
 PHA 44
 Cytochalasen B
 (4)
 Cytochalasen B 24
 / (600)
 (5) (4-3)
 (5) / (1000)
 :
 (45) (50-30)
 (10-5)
 (5-2)
 ..

Mitotic Index(MI)
(Shubber & Allak , 1989)

P≤0.05

Total W.B.C

(1000)

3 / (8986)
(4) 3 / (5615)

.(100)

Statistics

Student t-test (t)

(1)

P≤0.05

(1)

P≤0.05

5)
/ (53.99) 3 / (37.38)
3 / (43.17) 3 / (16.29)
3 / (10.73)
3 / (31.33)
3 / (0.61)
3 / (4.3)
(30)

(%9.89)

(%13.4)

Hemolytic anemia

(mg/dl 1.72)

(mg/dl0.7)

(3)

P≤0.05

/ 3 (26.2)

(2)

%93

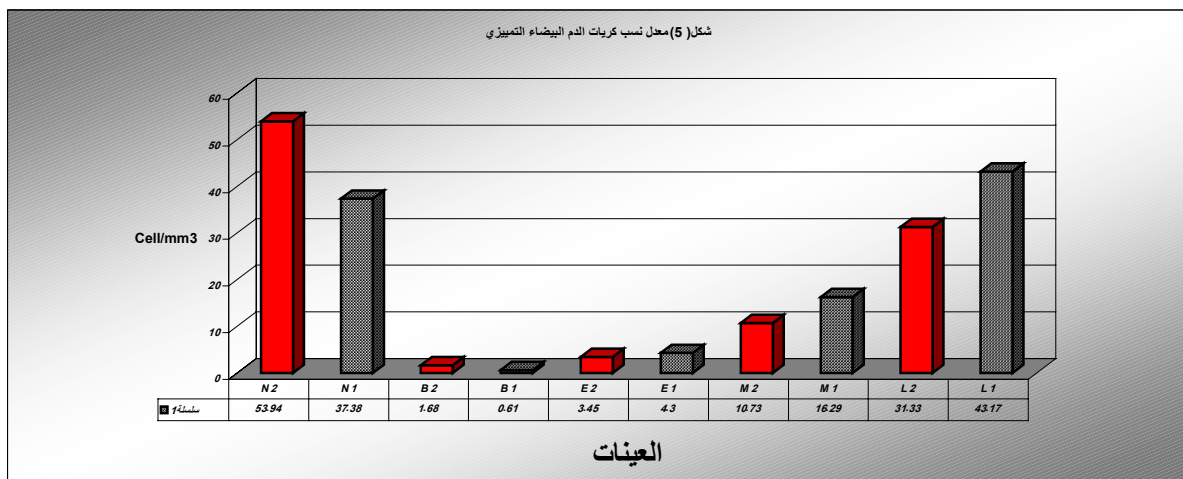
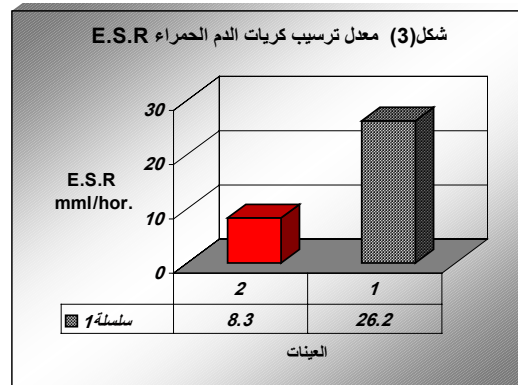
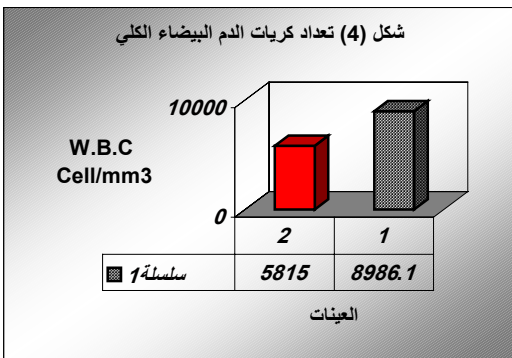
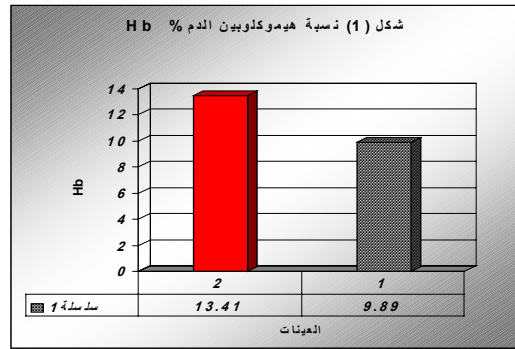
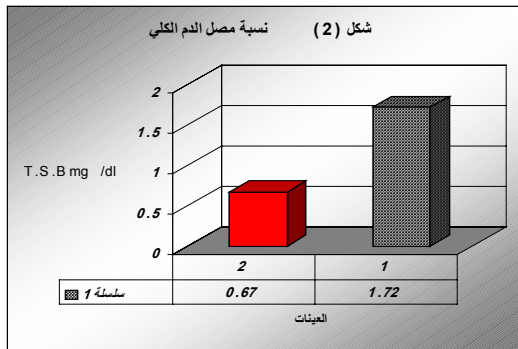
(3)Micronuclei

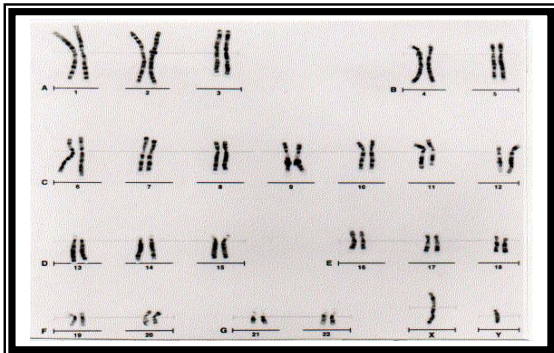
/ 3 (8.3)

- [8] Cooper BY. Vierck CJ.Yoemans DC.Selective reduction of second pain sensation by systematic morphine in humans. Pain 1986:24:93-116.) Mitotic Index
- [9] Dayer P. Desmeules J.Striberni R. (1992) In vitro forecasting of drugs that may interfere with codeine bioactivation. Eur. J. Drug Metab.pharma.:17:115-120. ((%1.55) (%2.8)
- [10] Gough AC.Smith CAD. Howell SM.(1993)Localization of the CYP20gene locus to human chromosome 18,17,7 by polymerase chain reaction. In situ hybridization. and linkage analysis. Genomics:15:430-438.
- [11] Mikus G.Traush B. Rodewald C.et al(1997)Effect of codeine on gastrointestinal motility in relation to CYP20D6 phenotype.Clin. Pharma.:61:459-466.
- [12] Sood, R.(1989).Haematology for student and practitioners .4th , ed., Jaypee Brothers Medical Publishers ,(p)LTD.,India .
- [13] Powers ,LW.(1989)Diagnostic hematology : Clinical and technical Principles. Mosby company .U.S.A. .(2000). -[14]
- [1] World Health organization. Cancer Pain Relief. 1986.
- [2]. Caraco Y. Sheller JR. Wood AJJ. Pharmacogenetic determination of the effects of codeine and predication of drug interactions. Parmacol.Exp. Ther 1996 :278: 1165-1174.
- [3] Brosen K.The Pharmacogenetics of the selective serotonin reuptake inhibitors. Clin Invest. 1993:71:1002-1009.
- [4] Lasagna L. Clinical evaluation of morphine and its substitutes as analgesics. Pharmacol Rev.1984:16:47-82.
- [5] Dalen P. Frengell C. Dahl HI. Quick onset of sever abdominal pain after codeine in an ultrarapid metabolism debrisoquine .Ther.Drug.Monil. 1998: 19 : 543 - 548.
- [6]Rossi S.(Ed.)(2004)Australian Medicines Handbook Adelaide:ISBN
- [7] Schroeder K.&Fahey T.(2004)Over the counter medications for acute cough in children and adults in ambulatory settings. The Conhrane Database of Systematic Rev.:4:185- 199.
- [15] Spenger, D. M., S, I. J. Bruce, (2003) In Human genetics. A manual of methods, Ed. Springer – Verlag Berlin Heidelberg, Germany, 71-84,.

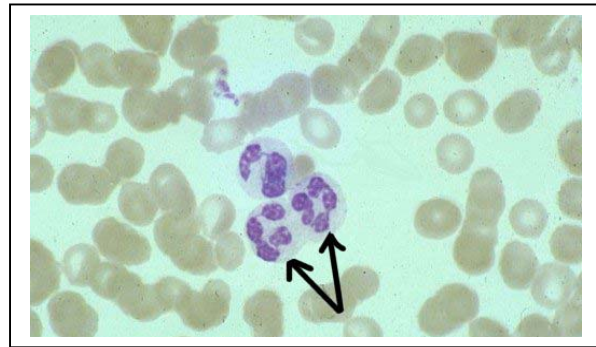
(1)

	10-8	8-6	6-4	
9	1	2	6	28-18
38	6	11	21	38-28
26	8	13	5	48-38
73	15	26	32	





(2)



(1)

HEMATOLOGICAL AND CYTOGENETIC STUDY OF ADDICTS TAKING ANALGESICS

ABDULLMAJEED ABDULLAZIZ AL-RAWI
SAMIR MISHRIF KHALAF

E.mail: sci_coll@yahoo.com

Abstract:

The study was carried out on (72) addicts of analgesics which contain the compound Codeine such as the syrup of cough suppressant. The ages of the addicts were between (18-48) years and the period of addiction was 4 to 10 years. Also, 40 persons who do not take any drugs were taken as samples for purpose of comparison. The study aimed at identifying the Hematological measurements which could happen to the addicts of such drugs. As the study aimed at studying the Cytogenetic measurements of the addicts and mean while identifying the side symptoms which accompany this case of addiction.

Accordingly, it has been found out that the over use of the analgesics creates a significant decrease $P < 0.05$ in the concentration of the Hb% (9.89%) accompanied by an increase of the average of the total serum bilirubin (T.S.B) (1.72) mg/dl. Also, there is a significant increase of the average of the E.S.R $P < 0.05$ to (26.2) ml/hor. And there is also an increase of the total count average of W.B.C (8986) cell/ml³ associated with a decrease of the immunity of the addicts greatly. There occurs significant differences $P < 0.05$ in the rate of the number of the differential W.B.C represented by a decrease in the average of the existence of the Neutrophil (37.38) cell/ml³. On the other hand, there is an increase in the rate of the Monocytes (16.29) cell/ml³ and Lymphocyte (43.17) cell/ml³. Although there were no chromosomal aberrations or damage (with the exception of one case), there were formation of the Micronuclei (MN) with various forms in most of the individuals of the samples. Also, there was an increase in the Mitotic index factor (MI) with (2.8%) in all the cases which is another indication of creating genetic and chromosomal aberrations which could not be observed easily through the test of the chromosomal Karyotype.