

(مقاله مروری)

مسمومیت‌ها و اوردوز دارویی

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چکیده

سالانه هزاران مورد مرگ در اثر مسمومیت‌های دارویی در دنیا گزارش می‌شوند. مسمومیت‌های تصادفی عمدتاً در بچه‌ها و بزرگ سالان بالای ۵۰ سال رخ می‌دهند، در صورتی که مسمومیت عمدی مثلاً از نوع خود مسموم سازی یا خودکشی بیش تر در سنین نوجوانی و جوانی دیده می‌شود. فهم الگوی مسمومیت‌ها به پیش‌گیری از آن‌ها خصوصاً کاهش وقوع موارد خودکشی، کمک شایانی می‌کند. ضمناً کاهش موارد مسمومیت‌های اتفاقی و سایر انواع مسمومیت‌ها مثل مسمومیت‌های ناشی از شغل نیز کمک می‌کند. اغلب مواد شیمیایی، بالقوه قادر به ایجاد مسمومیت می‌باشند خصوصاً اگر در شرایط مناسبی برای بروز آثار خود قرار گیرند. یکی از این شرایط مصرف خارج از حدود دوزهای توصیه شده است. در واقع در مورد داروها خصوصاً مصرف بیش از حد یا اوردوز می‌تواند سبب بروز آثار سمی شود. به عبارت دیگر در دوزهای بالاتر از حد معمول دیگر داروها نقش درمانی نداشته و به عنوان سم تلقی می‌شوند. اصلاح این نگاه در جامعه و نیز استفاده از ابزار موثر آموزش و تثبیت مراکز اطلاع رسانی سموم و مسمومیت‌ها، در کاهش مرگ و میر و آسیب‌های اجتماعی ناشی از داروها و سموم می‌تواند نقش بسیار موثر و جدی داشته باشند.

واژه‌های کلیدی: مسمومیت دارویی، مسمومیت شیمیایی، مسمومیت اتفاقی، خود مسموم سازی، خودکشی، مسمومیت اطفال.

مقدمه

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Overdose

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%

%

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(Poisoning) .[] []

(Accidental)

(Deliberate) .[]

(Suicide)

(Criminal, homicidal)

(Potency) .[] %

%

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() () .[]

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(

(Chronic)

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(Acute)

(Supra

acute)

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مسمومیت‌های حاد و کشنده

Poison

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(Paracelsus)

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علل مسمومیت

(Poisoning deaths)

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(Oleander)

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(Route of exposure)

(Route of absorption)

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% %

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[]

(unintentional / undetermined)

%

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%

%

(Hallucinogens)

(Stimulants)

(overdose)

Crack

/)

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[] (

Crack

Crack

Crack .

(Illicit drugs)

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تأثير جنس و مسموميت

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OTC

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% /

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OCP

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مسمومیت‌ها و سن

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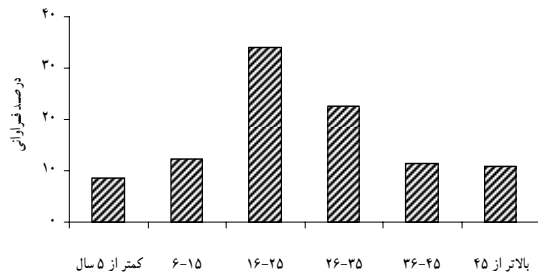
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گروه‌های سنی (سال)

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شکل ۱. فراوانی (%) موارد مسمومیت در ارتباط با سن، مطالعه مسمومیت در شمال کشور طی سال‌های ۱۹۹۷ الی ۲۰۰۰، تعداد موارد مسمومیت؛ ۱۷۵۱ (مطالعه مقدم نیا و عبدالهی، ۲۰۰۲).

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(% / % /)

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مسمومیت با داروها:

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عوامل ایجاد مسمومیت

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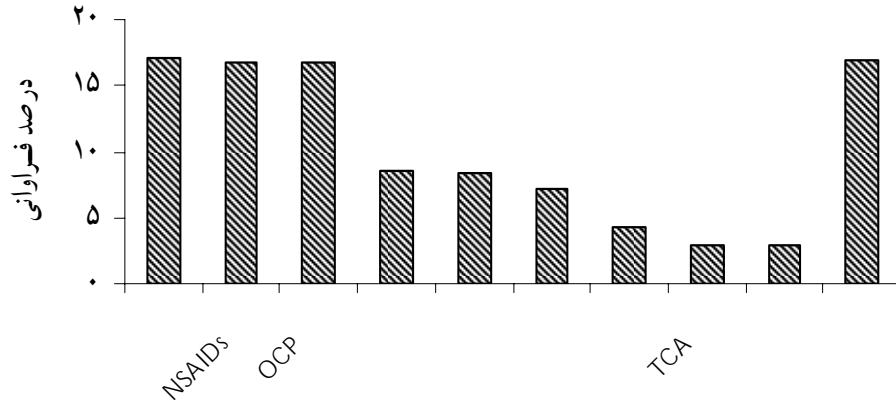
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مسمومیت با مواد غیر دارویی و شیمیایی

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عوامل ایجاد مسمومیت

) :TCA :OCP :NSAIDs.(%)

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HIV

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CNS

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Adverse)

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(drug reaction

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[]

(FDA)

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Genomics

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Bioinformatics

Proteomics

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(Imaging)

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منابع

- [1] 2005 annual report of the American association of poison control center national poisoning and exposure database. Clin Toxicol (Philadelphia) 2006, 44: 803-932.
- [2] 2005/2006 national poisons information service annual report. Chilton: health protection agency. 2006, 1-12.
- [3] Deaths related to drug poisonings: England and Wales, 2000-2004, health statistics quarterly 2006, 24: 69-76.
- [4] Camidge DR, Wood RJ, and Bateman DN. The epidemiology of self-poisoning in the UK. Br J Clin Pharmacol 2003; 56: 613-19.
- [5] Sobhani AR, Shojaei-Tehrani H, Nikpour E, and Norroozi-Rad N. Drug and chemical poisoning in Northern Iran. Arch. Iranian Med 2000, 3(2): 88-91

[]

.OTC

- [7] Fingerhut L, and Cox CS. Poisoning mortality. Public Health Rep. 1998, 113: 218-233.
- [8] Kotwica M, Czerczak S, and Rogaczewka A. The pattern of poisoning with pesticides in Poland during the periods 1989-1990 and 1994-1995. Przegl Lek 1997, 54(10): 689-692
- [9] Haselberger MB, and Kroner BA. Drug poisoning in older patients, Preventive and management strategies. Drug Aging 1995, 7(4): 292-297

[]

[]

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نتیجه گیری

- [12] Bijani Kh, and Moghadamnia AA. Long-term effects of chemical weapons on respiratory tract in Iraq-Iran war victims living in Babol (north of Iran). Ecotoxicol Environ Safety 2002, 53: 422-424.
- [13] Flangan RJ, and Rooney C. Recording acute poisoning deaths. Forensic Sci International 2002; 128: 3-19.

[]

- [15] Linden CH, and Burns MJ. Poisoning and drug overdose. In: Kasper DL et al. Harrison's principles of internal medicine 16th ed. McGraw-Hill companies Inc. New York, 2005, vol3: 2580-25-93.
- [16] Eddleston M. Patterns and problems of deliberate self poisoning in the developing world. Q J Med 2000, 43: 715-31.
- [17] Niederlaender E. Causes of death in the EU. Statistics in focus, 2006, 10: 2-11.
- [18] Moghadamnia AA, and Abdollahi M. An epidemiological study of poisoning in northern Islamic republic of Iran. Eastern Mediterr. Health J 2002, 8(1): 88-93.
- [19] Shah N. Drug overdose death in New Mexico, 2006. New Mexico Epidemiol 2007, 4: 1- 4.
- [20] Degenhardt L, Hall W, Lynskey M, and Warner-smith M. Illicit drug use. In: Ezzati M, Lopez AD, Rodgers A, Murray R. Comparative quantification of health risk: global and regional

- [44] Brito MA, and Reyes RM, Arguello JR, Spiller HA. Principle causes of poisoning in Quito Ecuador, a retrospective epidemiologic study. *Vet Hum Toxicol* 1998, 40(1): 40-45. []
- [46] Moghadamnia AA, Mirbolooki MR, and Aghili MB. General practitioner prescribing patterns in Babol city, Islamic republic of Iran. *Eastern Mediterr Health J* 2002, 8(4,5): 550-555. []
- [48] Rahman SZ, Khan RA, Gupta V, and Uddin M. Pharmacoenvironmentology –a component of pharmacovigilance. *Environ Health* 2007, 6(20): H1-3 []
- [50] Shah R, Uren Z, Baker A, and Majeed A. Deaths from antidepressants in England and Wales 1993-1997: analysis of a new national database. *Psychol Med* 2001, 31: 1203-1210.
- [51] Karbakhsh M, and Salehian Zandi N. Acute opiate overdose in Tehran: the forgotten role of opium. *Addictive Behav* 2007; 32: 1835-1842. []
- [53] Chazi-Khansari M, and Oreizi S. A prospective study on the fatal outcomes of poisoning in Tehran. *Veterinary and human Toxicology* 1995; 37(50): 44-52 []
- [55] Howton K, Houston K, and Shepperd R. Suicide in Young people, study of 174 cases aged under than 25 years, based on coroners and medical records. *Br J Psychr* 1999, 175: 271-276.
- [56] Trevor AJ, and Walter LW. Sedative-hypnotics drugs; In: Katzung BG. *Basic and clinical pharmacology*, 9th Edt. Chapt 22, 2004, pp: 351-366. []
- [57] Correia MA. Drug biotransformation; In: Katzung BG. *Basic and clinical pharmacology*, 9th Edt. Chapt 4, 2004, pp: 57-58.
- [58] Olson KR. Management of poisoning; In: Katzung BG. *Basic and clinical pharmacology*, 9th Edt. Chapt 59, 2004, pp: 982-994. []
- [62] Melev V, and Mikhlov D. Attempted suicide by poisoning in the Sofia region, *Br J Psychiatr* 1992, 160: 360-362.
- [63] Ali R, Chiamwongpaet S, Isfandari S, Jirammakoon S, Mardiaty R, Murauskiene L, and et al. The WHO collaborative study on substitution therapy of opioid dependence and HIV/AIDS 2005. *World health organization*. From: <http://www.who.int/substance-abuse> retrieved Nov. 26 2006. []
- [64] Cook S, Moeschler O, Michand K, Yersin B. Acute opiate overdose: characteristics of 190 consecutive cases. *Addiction* 1998, 93: 1559-1565.
- burden of diseases attributable to selected major risk factors. *WHO reports* 2001, 1109-1176.
- [21] Roxburgh A, and Degenhardt L. Characteristics of drug – related hospital separations in Australia. *Drug & alcohol dependence* 2007, 92: 149-155.
- [22] Parry CDH, Pluddemann A, and Myers BJ. Cocaine treatment admissions at three sentinel sites in South Africa (1997-2006): findings and implications for policy practice and research. *Substance abuse treatment prevention and policy* 2007, 2: 37.
- [23] Townsend E, Hawton K, Harriss L, Bale E, and Bond A. Substances used in deliberate self poisoning 1985-1997: trends and associations with age, gender, repetition and suicide intent. *Soc psychiatry Psychiatr Epidemiol* 2001, 36: 228-34.
- [24] Shaw D, Fernandes JR, and Rao C. Suicide in children and adolescents: a 10-year retrospective review. *Am J Forensic Med Pathol* 2005, 26: 304-15.
- [25] Dudley MJ, Kelk NJ, Florio TM, Howard JP, Waters BG.. Suicide among young Australians, 1964-1993: an interstate comparison of metropolitan and rural trends. *Med J Australia* 1998, 164: 77-80.
- [26] Abdollahi M, Jallali N, and Sabzevari O. A retrospective study of poisoning in Tehran. *Clin Toxicol* 1997, 35: 387-97.
- [27] Lecomte D and Fronese P. Suicide among youth and young adults, 15 through 24 years age. A report of 392 cases from Paris, 1989-1996. *J Forensic Sci* 1998, 43: 964-968.
- [28] Moghadamnia AA, Esmaeilnia-Shirvani T, Esmaeili MR, Bayati Z, and Gholitabar ZM. A report of childhood poisoning in Babol. *Arch Iranian Med*. 2004, 7(40): 297-299.
- [29] Lawson GR, Craft AW, and Jakson RH. Changing pattern of poisoning in children in Newcastle 1974-1981. *Br Med J* 1983, 287: 15-17.
- [30] Al-Hazmi AM. Patterns of accidental poisoning in children in Jeddah, Saudi Arabia. *Ann Saudi Med* 1998, 18: 457-459.
- [31] Dawod ST, Genelin RS, and Asfoura EG. Accidental poisoning of children in Qatar. *Ann Sandi Med*. 1989, 9: 243-246. []
- [33] Van-der-Hooek W, Konradsen F, and Athukorala K. Pesticide poisoning: a major health care problem in Srilanka. *Soc Sci Med* 1998, 49(45): 495-504.
- [34] Gossel TA, and Bricker JD. Poisoning due to analgesics during a period of 124 years in Denmark. *Vgeskr Larg* 1995, 157: 881-885 []
- [37] Nielsen AS, and Nielsen B. Pattern of choice in preparation of attempted suicide by poisoning with particular reference to changes in the pattern of prescriptions. *Ugeskr Laeger* 1992. 154(28): 1972-1976.
- [38] Beautrais AL, and Joyce PR, Mulder RT. Youth suicide attempts: a social and demographic profile. *Aust NZ J Psychiatr* 1998, 32(3): 349-357.
- [39] Bille-Brahe U, Kerkhof A, De Leo D, Schmidtke A, Crepet P, Lonnqvist J, Michel K, Salander-Renberg E, Stiles TC, Wasserman D, Aagaard B, Egebo H, Jensen B. A repetition prediction study, of European parasuicide population. *Acta psychiatr Scandin* 1997, 95(2): 81-86.
- [40] Elenhorn MJ, and Barceloux DC. *Medical toxicology, prevention, diagnosis and treatment* 2nd Edt. New York, Elsevier, 1988, 4-5 []
- [43] Deleo D, Conforti D, and Carollo C. A century of suicide in Italy, a comparison between the old and young suicide. *Life Threat Behav* 1997, 27(3): 239-49.

[69] Lasser KE, Allen PD, Woolhandler SJ, Himmelstier DU, Wolfe SM, Bor DH. Timing of new black box warning and withdrawals for prescription medication. *J Am Med Assoc* 2002, 287(17): 2215-2220.

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[71] Kola I, and Landis J. Can the pharmaceutical industry reduce attrition rates? *Nat Rev. Drug Disc* 2004, 3(8): 711-715.

[72] Lipiniski C, Hopkins A. Navigating chemical space for biology and medicine. *Nature* 2004, 432(7019): 855-861.

[65] Hickman M, Madden P, Henry J, Baker A, Wakkace C, Wakefield J et al. Trends in drug overdose deaths in England and Wales 1993-1998: methadone does not kill more people than heroin. *Addiction* 2003, 98: 419-425.

[66] Warner-Smith M, Darke S, Lynskey H, and Hall W. Heroin overdose: causes and consequences. *Addiction* 2001; 96: 1113-1125.

[67] Goswami M, Bindal M, Sen P, Gupta SK, Avasthi R, and Ram BK. Fat and oil inhibit phosphine release from aluminium phosphide its clinical implication. *Indian J Exp Biol* 1994, 32(4): 647-649h.

[68] Ellenhorn M. Metals and related compounds in: *Textbook of medical toxicology*. Chapter 67, 1998: pp: 1657-1659.