

약물중독 치료

Management of the poisoned patient

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약물중독 치료

- 개념

- Toxicokinetics, toxicodynamics & cause of death
- Management of the poisoned patient
 - Vital functions
 - Identification of poisons
 - Decontamination
 - Enhancement of elimination
 - Antidotes
 - Snakebites

개념

- Therapeutic drugs
 - Toxic dose
- 화학물질
 - 농업용
 - 공업용

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Toxicokinetics

- 특정 toxin 제거 방법의 타당성
 - Low volumes of distribution
 - Dialysis and diuresis
 - Urinary pH
 - Weak bases or weak acids
 - Clearance of drug at therapeutic vs toxic concentrations
 - First-order vs zero-order kinetics

Toxicodynamics

- 약물중독의 진단 및 치료
 - 혈압 및 맥박
 - Hypertension with tachycardia
 - Amphetamine, cocaine, antimuscarinics
 - Hypotension with bradycardia
 - Calcium channel blockers, beta-blockers, sedative-hypnotics
 - Hypotension with tachycardia
 - Tricyclic antidepressants, phenothiazines, theophylline
 - 체온
 - Hyperthermia
 - Antimuscarinics, salicylates, sympathomimetics
 - Hypothermia
 - Ethanol, CNS depressants

사망 원인

- 호흡기 장애
 - Respiratory depression
 - Sedative hypnotics and narcotics
 - Seizures, vomiting, respiratory depression
 - Cocaine, PCP, tricyclic antidepressants, theophylline
- 심장 장애
 - Arrhythmia
 - Tricyclic antidepressants, cardiac glycosides
- 간 및 신장 손상
 - Acetaminophen, mushroom *poisons*(*Amanita phalloides*), heavy metals

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Vital functions

- "ABCD"
 - Open and protected **A**irway
 - **B**reathing
 - **C**irculation
 - Cardiac rhythm, blood pressure
 - **D**extrose(50%, IV)
 - Hypoglycemia
 - Thiamine, naloxone

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Identification of poisons

- 병력, physical exam, laboratory exam, EKG, radiography
- Osmolar gap
 - 0 이상
 - Ethanol, methanol, ethylene glycol
- Anion gap
 - 12 – 16 meq/L 이상
 - Unmeasured acids
 - Drug-induced metabolic acidosis, renal failure, diabetic ketoacidosis
- Serum potassium
 - Myocardial function

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Decontamination

- Ingested toxins
 - Noncorrosive toxins
 - 의식 있는 환자
 - Syrup of ipecac으로 구토 유도
 - 무의식 환자
 - Gastric lavage
 - Corrosive toxins(강산, 염기)
 - 희석 및 활성탄소(activated charcoal)
- Topical exposure(살충제, 유기용매)
 - 탈의 및 세척

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Enhancement of elimination

- 신장배설
 - 소변 산성도 조절
 - Alkaline diuresis for weak acids
 - Acid diuresis for weak bases
- 혈중 독소 제거
 - Hemodialysis, hemoperfusion
- 위장관 독소 배설 촉진
 - 설사제(sorbitol등)

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Snakebites

- 작용
 - 효소, tissue toxins
 - 국소 조직 괴사, 혈관 손상, 혈전증, 출혈, 신경 손상
- 치료
 - 물린 부위를 고정시킨 후 병원 후송
 - Antivenins