

Analysis of the principles of narcotic drugs in the clinical application

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Abstract—Narcotic drugs is as an integral part of the special clinical medicine, and it has wide range of usage varies, state management of narcotic drugs is also very strict, most anesthetics in continuous use would most likely produce physical dependence, and it is easy to form addiction, therefore, clear principles of narcotic drugs in clinical use is essential. This study describes the first narcotic drug pharmacokinetic analysis, followed by the drug narcotic drug therapy, medication precautions and drug interactions were analyzed, the final analysis will summarize the clinical application of the principles of narcotic drugs.

Keywords- *Clinical application; application of the principles; narcotic drugs*

I. INTRODUCTION

Narcotic drugs, is mainly used for anesthesia and analgesic, and it is divided into anesthetic (sedatives), anesthetics (analgesics), muscle relaxants, and antiemetic drugs. Anesthetic is divided into a general anesthetic (divided intravenous anesthetic and inhalation anesthetics) and a local anesthetic. Pay attention to the combination of general anesthesia, in which the patient is unconscious using anesthetic, anesthetic relief pain, muscle relaxants relax muscle, antiemetic drug is for vomiting, other non-narcotic medication is to maintain basic life functions. General anesthesia includes anesthesia, anesthesia maintained, anesthesia and postoperative analgesia four stages. Local anesthesia is mainly used in local anesthetic, and we rarely use anesthetics, muscle relaxants and antiemetic drugs.

Drug abuse has become a global issue of human survival and development and it constitutes a major threat, aroused great attention of governments. Drug abuse refers to unrelated medical purposes, the use of self-administered medication and repeated heavy use of dependent drug use produces euphoric effect caused by a sense of relaxation and pleasure, which gradually produces cravings and dependence on the drug, due to the occurrence of mental disorder people can not be controlled, and have some unusual behavior, which often leads to serious consequences.

Narcotic drugs are prone to physical dependence which refers to continuous use, and addiction medicine. Such drugs has obvious duality, on the one hand there is a strong analgesic effects, the drug is medically necessary, but not standardized continuous use is easy to produce dependence, if the inflow of illegal channels has become the drug, it causes serious social harm

II. PHARMACOKINETICS OF NARCOTIC DRUG

Narcotic drug has its own pharmacokinetics, and drug use should be based on the distribution and extent of absorption of the drug after its administration, as well as the patient's own sensitivity to pain and drugs, which is mainly in absorption, metabolism and excretion. General anesthetics through a variety of ways can be absorbed, but it needs reasonable arrangements according to different levels of administration of medication absorbed; major drugs metabolic organ is liver, the other is kidney, lung and intestinal can be metabolism of some drugs. Therefore, for patients with poor kidney function they should be used with caution in narcotic drugs, and some narcotic drugs can affect the fetus through the placenta, it can cause fetal asphyxia, therefore, it should be used with caution in pregnant women narcotic drugs.

III. THERAPEUTICS OF NARCOTIC DRUGS

We should read the drug dosage form, dosage, route of administration, and duration of treatment carefully before medication. Particularity of narcotic drugs, narcotic dosage and duration of treatment must be good target controlled. Note that the route of administration and adverse reactions, first determine whether premedication is necessarily to use narcotic medication, incorrect use of narcotic drugs may cause diagnosis errors and delay in treatment time.

IV. PRECAUTIONS

While using narcotic drugs we should note the following: (1) general chronic pain should prohibit the use of narcotic drugs; (2) for acute pain, when its exact diagnosis is not clear, we can not easily use narcotic analgesic drugs, in order to avoid illness and cover up the truth missed the timing of treatment, such as acute abdomen; (3) pay attention to drug addiction narcotic drug use, avoid withdrawal reactions, reasonable arrangements for drugs; (4) to pregnant women medication, you should pay attention to whether the drugs can pass through the placenta to the fetus the impact, within 2 ~ 4h before delivery to avoid the application of narcotic drugs; (5) for elderly or children with weak constitution, people with poor liver function, they should use it with caution. Actively improve respiratory function preoperatively for the patient, to ensure that water and electrolyte, acid-base balance, and blood pressure, heart rate are controlled in the normal range, avoiding the occurrence of accidents, improving the success rate of anesthesia and invasive surgery. In addition, to prevent the use of

anesthetics after the occurrence of postoperative cognitive dysfunction, studies have shown that postoperative cognitive dysfunction occurs in 65 cardiac and other major surgeries in elderly patients. 4 drug interaction studies have demonstrated that anesthetic drugs are in combination with other drugs to improve the treatment effect and reduce adverse reactions, such as: chlorpromazine in combination with pethidine can enhance the analgesic effect, but it will reduce blood pressure in patients after use, tachycardia; pethidine is not with other monoamine oxidase inhibitors simultaneously, both common use may produce adverse reactions, so the patient before using pethidine should be no taking monoamine oxidase inhibitors history (phenelzine, pargyline, etc.) . To prevent narcotic overdose, during surgery they should be avoided with strong inhibition on cardiovascular drugs. Abroad it has been reported that to patients before and after inpatient surgery while taking atenolol, the incidence rate of myocardial ischemia after discharge of six months, one year and two annual significantly is lower than atenolol in patients who were not taking atenolol. It was also higher than the control group, and the high survival rate is about 15%.

Time of administration of narcotic drugs, to determine the timing of administration of narcotic drugs is very necessary for those patients with chronic pain, according to the pharmacokinetics of the patient and administration time to a reasonable arrangement, and it can be a good promotion for patients' pains effect. Such as various quack for steep hydrochloride, oral analgesic lh can play a good role, medication time achieves sustained and effective 12h, after once or twice you can receive better treatment results.

V. ADVERSE EFFECTS NARCOTIC DRUGS MAY HAVE

Narcotic pain medication as a clinical important drug, during the course of treatment it is likely to be some complications, such as quack steep cause for the patient's symptoms of vomiting and nausea, and so on. At the same time there are some medications that can cause constipation patients or cause the patient's own respiratory inhibition and so on. Therefore, prevention of a variety of clinical adverse reactions is very necessary. Prevention of major adverse clinical drug allergies is to understand the patient's own before applying the anesthetic drug situation. At the time of the occurrence of adverse reactions in patients, you should take the necessary measures to deal mainly taking medicine to soften promote defecation, timely oxygen and taking antiemetic drugs and so on.

VI. INTERACTION STUDIES BETWEEN DRUGS

Some clinical studies have found that the combination between narcotics and other drugs enhances treatment effects for patients, and it also can reduce the incidence of adverse reactions. Such as chlorpropyl wined and ak for combination between steep Pains can strengthen the effect to some extent, so that the patient's own blood pressure. Also monoamine oxidase inhibitors can not be used in conjunction with gung steep for joint use of both will produce some adverse reactions, so gung for use before to make sure the patient is not steep monoamine oxidase inhibitors. In

addition, to minimize the excessive use of narcotic drugs in the course of doing surgery we should be possible to avoid those for cardiovascular patients having relatively strong inhibition of narcotic drugs.

Process in vivo inhalation anesthetics: a transit anesthetic is depending on the depth of anesthesia anesthetic concentration in brain tissue, alveolar → → diffuse into the blood circulation through the blood - brain barrier → brain; 2 factor affecting diffusion rate through the membrane: it is proportional to the pressure difference across the membrane fraction of drug solubility temperature diffusion area, and molecular diffusion is inversely proportional to the distance; 3 speed into the alveoli is proportional to inhaled concentration and pulmonary ventilation proportional to speed up the use of the second gas effect induced by lower first second, to reduce the adverse effects of gas concentration against cardiovascular inhibition second gas; 4 speed into the blood, anesthetic solubility in blood, cardiac output, alveolar - venous anesthetic partial pressure, the three have a intake for 0 to 0, a higher rate increase; 5 speed into the tissue, is proportional to the partial pressure, tissue blood flow and tissue within the arterial blood and tissue solubility of anesthetics, greater and faster the brain, fastest the and muscle fat is the slowest; 6 biotransformation; 7 excretion, metabolism part, part excreted unchanged from the lungs, increasing ventilation can accelerate the discharge.

The pharmacological effects of halothane and adverse reactions: the pharmacological effects of (a poor analgesic effect, muscle relaxant effect of weak demand plus muscle relaxants; 2 it can reduce cerebral metabolic dilation of cerebral blood vessels, significantly increased cerebral blood flow, intracranial pressure was significantly up high; three pairs of the circulatory system was significantly inhibited, direct inhibition and baroreceptor cardiac disorders, and it is caused by decreased systolic diastolic obvious, increased heart rate and cardiac self-discipline; 4 there are no pairs of respiratory tract irritation, coughing does not cause laryngospasm, so that inhibition of the secretion of the salivary glands bronchiectasis tracheobronchial mucosa; 5 there are pairs breathing significantly inhibited, with deepening anesthesia, decreased ventilation; 6 inhibit gastrointestinal motility, it does not cause blood sugar, and can be used for diabetes) adverse reactions (1 inhibition of the respiratory cycle, there is a dose-dependent manner; 2 arrhythmia, anesthesia breathing deal, we should not use NA; 3 liver damage; 4 malignant hyperthermia, a rare serious complications during anesthesia, anesthesia can cause a lot of muscle relaxants, and fluorine alkyl + succinylcholine cause maximum that can lead to heart failure and death.)

VII. BASIC PRINCIPLE OF DEALING WITH PAIN

Standardized pain management (Good Pain Management, GPM) is a new concept analgesic therapy currently advocated, only is it standardized can we effectively improve the diagnosis and treatment of pain, during treatment of pain reduce complications may arise.

A. *Clear therapeutic purposes:*

Relieve pain and improve function, improve quality of life. Include physical condition, mental state, family and social relations maintenance and improvement.

B. *Diagnosis and assessment of pain*

Master the correct diagnosis and assessment methods: Pain is the fifth vital signs. Clinical diagnosis and evaluation, and record of the disease, it should be objective, accurate, intuitive and convenient. The initial evaluation of patients include: psychological function and impact (1) a history of pain and pain on the physiology of the social, professional level. (2) Method diagnosis, examination and evaluation of previously are accepted from other sources consult and result, conclusions and surgical treatment and drug history. (3) Drugs history of mental illness and substance abuse disorders merger or otherwise. (4) The purpose of a medical examination. (5)

C. *The nature and extent of pain assessment*

Pain is a subjective experience, so to the degree of pain evaluation we should believe the patient's chief complaint, we should respect the patient's own evaluation of the degree of pain and the expression of anyone should not be subjective.

Periodic re-evaluation, on re-evaluation of the time, according to the diagnosis, pain, treatment plan, there are different requirements; chronic pain patients should be evaluated at least once a month, including the therapeutic effect and safety (such as subjective pain assessment, functional changes, quality of life, side effects, mood changes) and patient compliance.

Those who accept the strong opioid treatment, patients should observe any abnormal behavior, such as multi-prescription drugs, hoarding, to prevent adverse drug use and illegal drain.

D. *Develop treatment plans and goals:*

Standardized pain treatment principles: the effectively eliminate pain, minimize side effects and the psychological burden caused by pain, and comprehensively improve the

quality of life of patients. The key is to follow the standard treatment of medication and treatment principles. Pain control criteria: pain intensity numeric assessment method is less than 3 or reaches 0; the number of sudden pain within 24 hours is less than 3 times.

VIII. CONCLUSIONS

Administrating narcotic drugs is more difficult, requiring medical institutions on the one hand good use of narcotic drugs, on the other hand, it should be in accordance with state laws and regulations to manage narcotic drugs, to prevent abuse and the loss of non-medical purposes. The hospital is one of the units of narcotic drug use, to fully and conscientiously implement the laws and regulations, strengthen management to ensure proper use and safe, effective and best meet the needs of patients with pain relief, and achieve the ideal goal that patients are painless, cancer patients are painless.

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