IPBF FACT SHEET
KETAMINE ABUSE AND THE URINARY TRACT
KETAMINE CYSTITIS

WHAT IS KETAMINE

Ketamine is a dissociative anaesthetic developed in the mid 1960s and is used in human and veterinary medicine. In medical settings, administration of ketamine may be intravenous, subcutaneous, intramuscular, oral, topical intranasal or sublingual. It is used for inducing and maintaining anaesthesia, for analgesia in a variety of pain settings, and as a rapid effect antidepressant. It is perhaps best known for its use in treating injured soldiers during the Vietnam War. Reported side effects in some patients have included hallucinations, nightmares, sedation, dizziness, blurred vision, agitation and nausea/vomiting. It may increase blood pressure and heart rate.

RECREATIONAL ABUSE

Nonmedical (illicit) use was first documented in the late sixties/early seventies when it was emerging as a club drug. By the nineties, ketamine abuse was rapidly increasing in East Asia, particularly in the dance culture of Hong Kong, while today it is being used recreationally worldwide due to its relative low cost compared to similar drugs. As a party drug, it is being used by young people, including very young teenagers. It may be snorted, injected or taken orally in pill form, sometimes masquerading as XTC pills. It may also be mixed with other drugs and of course accompanied by a lot of alcohol. Since ketamine is tasteless and odourless, it can be placed in drinks without the intended victim suspecting and as such is used as a "date rape drug". The numerous street names for ketamine include K, Special K, Vitamin K, Super Acid, Super C, Bump, Cat Valium, Green K, Honey Oil, Special La Coke, Ket, Kitty, Kit Kat, New Ecstasy, Purple and Jet. A mixture of ketamine and cocaine is called Calvin Klein or CK1. In Hong Kong, the street name is Kai-Jai.

EFFECTS OF KETAMINE ABUSE

Effects associated with recreational ketamine abuse include a hallucinogenic-like effect, a pleasant dream-like state, sense of floating and being separated from your body. However, some ketamine "bad trips" can cause a frightening sensation of total dissociation compared to a near-death experience and known as the "K-hole", with the sensation of being in a dark tunnel. In addition to the side effects mentioned above, ketamine abuse may also cause amnesia, flashbacks, memory impairment, anxiety, impaired motor function, respiratory and gastrointestinal disorders.

In the past decade, there has been increasing realisation that ketamine abuse can lead to multiple system damage including pain and damage to the urinary tract, with interstitial cystitis-like inflammatory bladder changes and symptoms, with an increased urge to urinate, blood in the urine, incontinence and pain on urination.

CLINICAL PRESENTATION

Since patients may present with IC-like symptoms, young people especially should therefore be questioned regarding the possibility of recreational ketamine abuse. Recent studies in different parts of the world have reported chronic inflammation, often severe lesions without malignancy, denuded epithelium, thickened bladder wall, contracted bladder, reduced bladder capacity, ureteric wall thickening, narrowing and strictures, swollen kidneys. The longer the drug abuse, the worse the risk of extensive and devastating damage.

TREATMENT

Cessation of ketamine abuse at an early stage has been shown to reduce urinary tract symptoms in some of these patients. However, the outcome of treatment depends on the severity of the disease process and level of addiction. It has been seen that in some patients the damage is so severe that it is irreversible. Long-term abusers may have such extensive damage to the bladder that cystectomy may be the only option. Results of surgery may, however, be severely compromised if ketamine abuse is resumed or continued. Ketamine is a very addictive drug and if a patient has been using it for several years, they may find it impossible to stop. Treatment may additionally be complicated by the fact that after several years of ketamine abuse, patients may have developed many other physical and mental problems including cognitive impairment and schizophrenia-like symptoms. Since the mechanism of ketamine-associated urinary tract symptoms is still not fully known, treatment is aimed at alleviating the symptoms. Treatments that protect the bladder lining such as intravesical sodium hyaluronate, chondroitin sulfate or pentosan polysulfate have been used with some success.

PREVALENCE

Prevalence of urinary tract symptoms among ketamine abusers is uncertain, but studies have indicated that at least between a quarter and one third of ketamine abusers may be affected.

AWARENESS

It is vital to raise awareness and to warn teenagers and young adults of the risks. It is equally essential to increase awareness among health practitioners since delays in diagnosis can lead to irreversible pathological changes among ketamine abusers. Furthermore, if ketamine abuse continues to escalate, the resultant urinary tract symptoms could place high demands on health resources at substantial cost in the future.

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