

Urine Drug Testing in a Sickle Cell Population Treated with Chronic Opioids

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BACKGROUND

Many patients with sickle cell disease (SCD) suffer from acute and chronic pain, for which prescription opioids have been considered the most effective analgesic. Treating with opioids, however, must be balanced against the risk of prescription opioid abuse, which in the United States has reached epidemic proportions. Most of the opioids that are used for nonmedical purposes in the United States originate from valid physician prescriptions. More alarmingly, deaths from prescription opioids now exceed deaths from heroin and cocaine combined.(1) It is in the interest of public health to minimize opioid misuse.

Urine drug testing (UDT) and treatment agreements offer tools to help identify potential misuse of prescription opioids.(2) Katz and colleagues demonstrated that UDT may be the most important surveillance technique for detecting illicit drug use in long-term opioid analgesic therapy.(3)

UDT may be controversial for several reasons: it introduces an element of distrust into the patient doctor relationship; there is limited evidence that UDT makes an impact on aberrant behavior; and it further stigmatizes patients. Despite these drawbacks, UDT for chronic pain is recommended by pain experts and is becoming standard practice. There are two purposes for screening, one is to ensure that there are no illicit substances that may signify underlying abuse, and the other is to confirm that the prescribed medications are being taken by the patient, and thus identify possible drug diversion.

PURPOSE

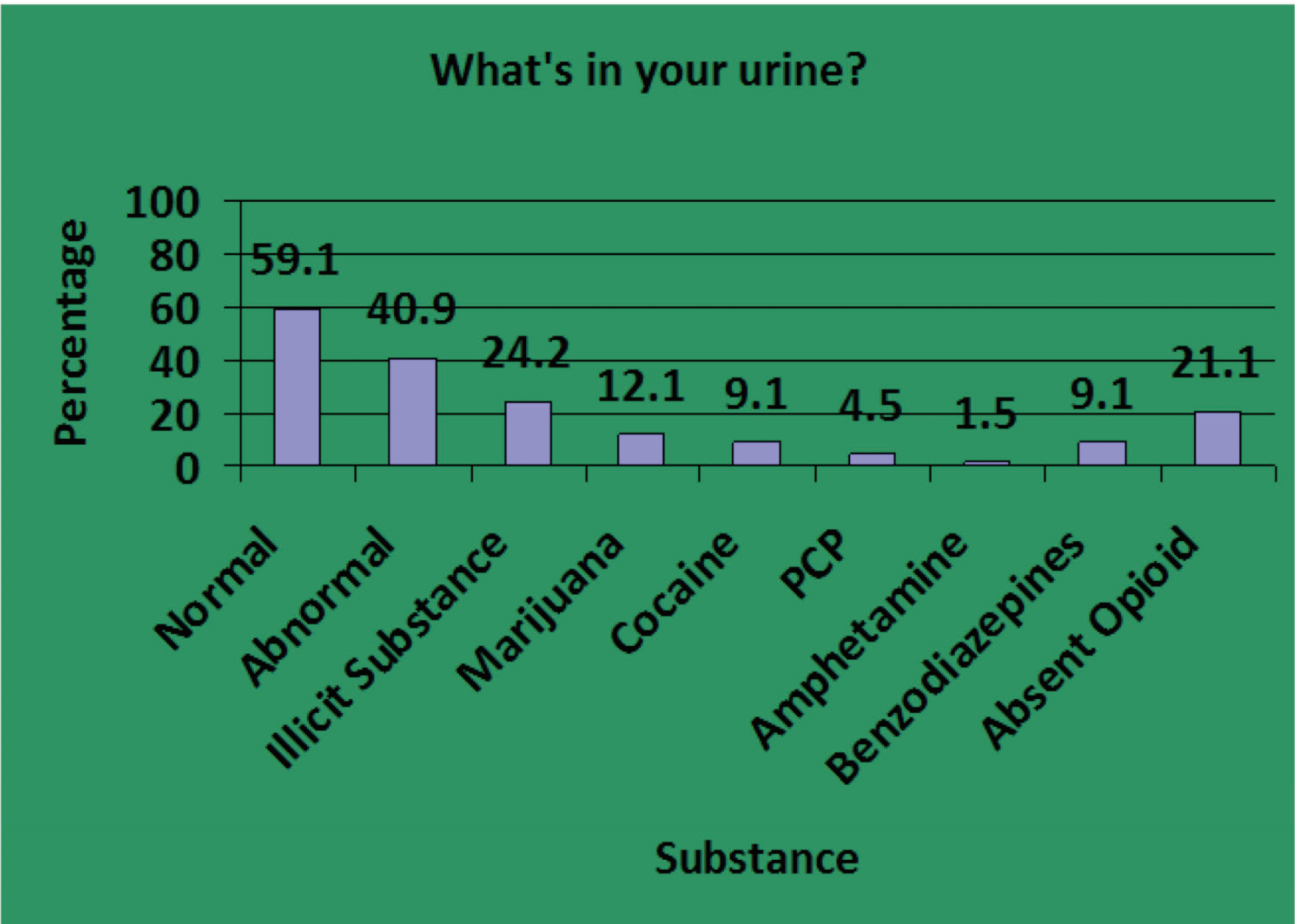
A review of UDT results of patients with sickle cell disease over a three-year period. UDT was conducted on patients who were prescribed long-term opioids for daily use. UDTs were tested at least once a year, and in selected patients more frequently.

METHODS

- **To identify the prevalence of abnormal UDT among patients who are prescribed chronic daily opioids.**
- **To identify patients who are improperly using their opioid medications.**
- **To better understand and improve the treatment of chronic pain for patients with SCD.**

RESULTS

- **From 2009-2011; 66 patients were identified who have SCD and who were prescribed opioids for daily chronic use.**
- **Of these 66 patients, UDT during the four year period yielded the following results:**
 - **39 had consistently normal UDTs (59.1%)**
 - **27 had at least one abnormal UDT (40.9%)**
 - **16 were positive for an illicit substance on at least one occasion (24.2%)**
 - **Of these illicit substances the following were detected:**
 - **8 were positive for marijuana (12.1%)**
 - **6 were positive for cocaine (9.1%)**
 - **3 were positive for PCP (4.5%)**
 - **1 was positive for amphetamines (1.5%)**
 - **6 were positive for unprescribed benzodiazepines (9.1%)**
 - **14 had little or no evidence of the prescribed opioid on at least one occasion (21.1%)**
- **An abnormal UDT is defined as the following in our study: UDT was either positive for an illicit substance, positive for an unprescribed controlled substance, or a prescribed daily opioid was either absent or in much lower levels than what was prescribed.**



DISCUSSION

The majority of patients with SCD who take daily opioids in our study had a normal UDT. While a significant percentage of patients had an abnormal UDT during the three-year period, the percentage of abnormal UDT is actually lower than has been reported in chronic pain populations.(4) UDTs taken in the context of clinical history can be used to identify patients who are abusing opioids and/or other substances. These patients can then undergo appropriate interventions to decrease misuse of opioids and to improve patient care. These results support the use of screening patients with SCD who are on long-term opioid therapy with UDT.

There are several explanations for the UDT results indicating lack of the prescribed opioid. Some patients may have misunderstood the prescription instructions and instead used their medications for as needed use instead of daily use; others may have hoarded medications to use during severe painful episodes; while others could be diverting their medications.

In light of the high rates of abnormal UDTs for chronic pain among patients with sickle cell disease, daily opioid therapy for chronic sickle cell pain should be used cautiously. Alternative analgesics, adjuvant medications and non-pharmacological treatments should be optimized before resorting to chronic daily opioid treatment.

REFERENCES

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