Pink urine syndrome: a rare clinical presentation

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ABSTRACT Urine pigmentation other than yellowish is always compelling. The presence of several substances in conjunction with the acidification of the urine usually alter the normal color. Pink pigmentation is rather uncommon and it has been related to propofol administration or the presence of uric crystals. In our case, the patient suffered from acute compartment syndrome after an accident and developed pink urine for at least 24 hours of unknown etiology after his orthopedic surgery.

KEYWORDS Pink urine, urine pigmentation

Introduction

Pigmented urine, such as blue, violet or green has been described after the presence of colouring matters in the urine [1]. For example myoglobinuria, secondary to rhabdomyolysis can be a cause of violet-colour urine or green colour after methylene blue usage. On the other hand, pink urine is rarely seen in some cases of propofol administration during general anaesthesia [2] and in some patients with hyperuricosuria that causes uric acid depositions [3]. In most of the studies published, pink urine was associated with low urine pH levels as well as uric acid crystal formation. Obese patients were more likely to develop pink urine syndrome after major abdominal surgery. In any of the cases pink urine was not related to urinary tract infection, hematuria or pyuria, and therefore no specific treatment was applied [4]. Notwithstanding the current knowledge of this clinical presentation, I would like to report a case of pink urine syndrome of unknown aetiology.

Case Report

A 40-year-old patient with a history of bipolar disorder and drug (Heroin) addiction was presented into the emergency department after a motorcycle accident. His chronic medication

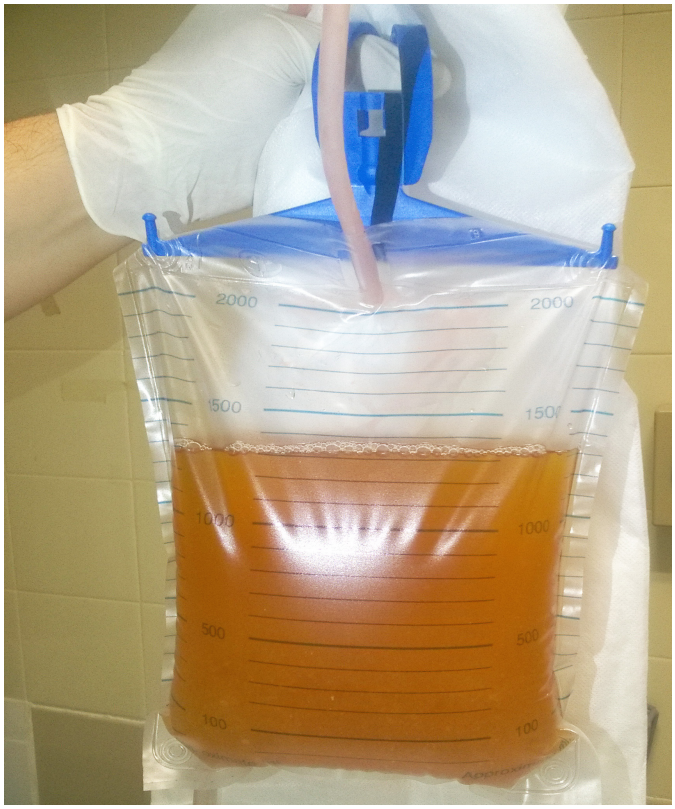

Figure 1: Pink urine is observed in the tube of the catheter bag.

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included haloperidol, lorazepam, and quetiapine for the last ten years. The patient suffered from a left tibial fracture which developed rapidly into a compartment syndrome. An immediate surgical decompression followed by external fixation osteosynthesis was performed under spinal anaesthesia. The first postoperative day the patient developed an impressive pink pigmentation in the urine which lasted for approximately 24 hours. Additionally, the patient had just started the drug detoxification program the day before the accident using a combination of buprenorphine and naloxone. Interestingly, the patient's urine pH was alkaline (8) without the presence of uric acid depositions, and urine pink pigmentation was spontaneously resolved 24 hours later after extensive intravenous hydration.

In our case, the patient was operated under spinal anaesthesia and had normal kidney function and blood acid levels. The potential rhabdomyolysis that may have been developed due to the compartment syndrome cannot explain the pink pigmentation. Finally, the causative role of buprenorphine, a partial opioid agonist/antagonist, as a factor for pink pigmentation, is currently unknown.

Competing Interests

None

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