



## PURPLE URINE BAG SYNDROME: A STRIKING MANIFESTATION OF URINARY TRACT INFECTION IN CHRONIC CATHETERISED PATIENTS

### General Medicine

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### ABSTRACT

Purple urine bag Syndrome (PUBS) is a rare clinical presentation of purplish discoloration of the urine and the catheter system, which if managed early remains a benign condition and prevents the excessive morbidity which can occur in old debilitated patients. We here present a case of 75 years old hypertensive female with right sided hemiparesis and prolonged catheterization who presented with this condition.

### KEYWORDS

#### INTRODUCTION:

PUBS, purplish discoloration of the urine and the catheter system, is a cause of major concern to the patients, family members and the treating clinicians, though in most of the cases it is a benign process. It is a rare manifestation of the bacterial growth in the catheterized patients, though in some series the prevalence has been reported as far as 9.8% (1). The first formal report regarding this condition was published in the Lancet in 1978 (2).

#### CASE REPORT:

We here report a case of 75 years old hypertensive female who was recently discharged with diagnosis of left MCA (Middle Cerebral Artery) infarct. The patient was having right sided hemiparesis and was catheterized from last one month due to complaints of recurrent bed wetting. At the time of follow up, the patient was having purplish discoloration of urine and bag (**Figure 1**). She was not on any medications causing such discoloration. So patients catheter system was changed and urine sample was sent for culture sensitivity testing. The culture sensitivity report did not showed any specific growth. With conservative management there were no further complaints in form of recurrent discoloration (**Figure 2**), fever or other manifestations related to urinary tract infection.

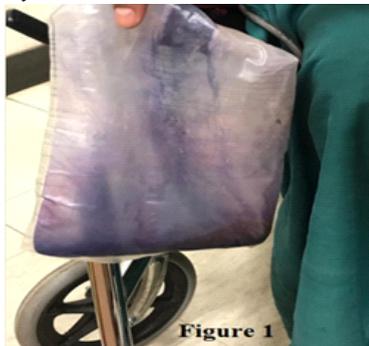


Figure 1

Figure 1 Purple Coloration of Urine bag



Figure 2

Figure 2 Post treatment clear urine

#### DISCUSSION:

Purple urine discoloration is a rarely reported condition. The hypothesis behind this syndrome is the deamination of dietary tryptophan to indole followed by indoxyl phosphate which is further degraded by bacterial enzymes present in urine into indigo and indirubin pigments leading to this striking discoloration(3). The main risk factors proposed which are responsible for this condition included constipation, high bacterial load in urinary tract, prolonged catheterization, female gender, an alkaline urine and rich tryptophan diet (4). The bacterial species most commonly associated with this condition are Klebsiella Pnemoniae, Proteus Species, Providencia Stuartii, Pseudomonas Aurugenosa, Escherichia coli, Morganella, citrobacter species, Enterococci, and Group B Streptococci (4-5), though in our patient there was no growth observed as may be secondary to the early detection of the condition leading to early management.

#### CONCLUSION:

We are hereby reporting this case to highlight this syndrome and its benign nature if managed at an early stage but if not recognized, can later lead to serious urinary tract infection manifestations which will increase the morbidity in already debilitated chronic disease patients.

#### REFERENCES:

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