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Figure 1

A 65-year-old lady with a history of stroke was seen in the follow up neurology clinic with a complaint of discoloured urine (Figure 1). She was recently being discharged from the ward with a urinary catheter but her urinary catheter has not been changed for the past 3 weeks. On inspection of her urine bag and tubing, purplish discoloration of urine was noted. She did not have any symptoms such as fever or lower urinary tract symptoms.

What is the diagnosis?

Answer: refer to page 178

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(Refer to page 163)

Answer: Purple urine syndrome

The urinalysis showed a pH of 7.5, specific gravity of 1.020 and it was positive for leucocytes and nitrites. The urine culture had significant growth of *Klebsiella pneumonia*. She was treated with a course of antibiotics and had her urinary catheter and bag changed. Subsequently her urine colour became yellow and cleared without any complications.

Purple urine bag syndrome (PUBS) is an uncommon yet interesting phenomenon was first reported in 1978 and has since been well documented.¹⁻³ The reported prevalence particularly in institutionalised patients with long-term urinary catheters can be as high as 9.8%.⁴ Factors associated with PUBS include female gender, constipation, alkaline or acidic urine, institutionalization and the presence of long-term urinary catheterization.²

PUBS can occur due to the presence of indigo and indirubin pigments. These blue and red pigments are from indoxyl sulphate, which had been metabolized from the activity of indoxyl sulphotase with certain bacteria in the urine like *Klebsiella pneumonia* and *Escherichia coli*.^{2,3} As with our patient, management includes reassuring the patient and caregiver and treating with appropriate antibiotics based on bacteriological cultures and sensitivity and with changing the urinary catheter and bag.

Although usually benign, this image highlights the importance of recognizing this intriguing syndrome as a urinary tract infection, which occurs commonly with improper urinary catheter care.

REFERENCES

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