

## Purple Urine Bag Syndrome

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The case is presented of a 77-year-old man, bed-ridden, with chronic catheterization, with a personal history of carcinoma of the upper urothelium of the bladder, and adenocarcinoma of the prostate; submitted to cystoprostatectomy with ileal neobladder construction in April 2008, and palliative radiotherapy for osteolytic lesion of the coccyx in November 2008. He was admitted to the Medicine service with frequent vomiting, dehydration, prostration and confused state. Analytical evaluation showed hypercalcemia of 13.9 mg/dL, and the patient was medicated with disodium pamidronate with a drop in calcium levels (8.3 mg/dL four days afterwards). Patient subsequently developed fever (38-39°C), with an increase in inflammatory parameters (12900 leukocytes, PCR 18.12 mg/dL) and purple coloration of the vesicle drainage system. Summary urine test showed alkaline urine (pH 8,0), leukocyturia and positive nitrites. In the urine cultures requested, no microorganism was isolated. In the therapeutic, no drug was found that could explain the phenomenon. The patient began empirical therapy with amoxicillin and clavulanic acid, and the cystocatheter was replaced, with an improvement, drainage of yellow urine, and no recurrence of the purple colour in the urine catheter.

The appearance of a purple coloration in the vesicle drainage tube and catheter is an event that is occasionally linked to chronic catheterization. Described for the first time in 1978, it is more common among older female patients with chronic constipa-



Purple coloration in the vesicle drainage tube and catheter.

FIG. 1

tion and urinary infection.<sup>1</sup> The most consensual etiological explanation is infection of the urinary tract by bacteria with sulfatase/phosphatase activity, which break down indoxyl sulfate, a tryptophan metabolite, in indigo (blue compound) and indirubin (red compound) which in alkaline medium, gives the urine its purple color.<sup>2</sup> Bacteria isolated in the urine of these patients include *Pseudomonas aeruginosa*, *Proteus mirabilis*, *Escherichia coli*, *Klebsiella pneumoniae* and *Morganella morganii*.<sup>3</sup> The clinical course is normally benign.<sup>4</sup> ■

### References

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Received for publication on 26 March 2009  
Accepted for publication on 24 April 09