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Case Report

A rare phenomenon: Purple urine bag syndrome in a chronic lymphocytic leukaemia patient

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A 64 year old Moroccan man was diagnosed with chronic lymphocytic leukaemia (CLL) in 2007. He was also known to have hypogammaglobulinaemia. He had obtained a good partial response after completing twelve cycles of chlorambucil. His general health had been good and he had continued in full time employment throughout. The patient was hospitalized to our department because of acute urinary retention secondary to benign prostatic hyperplasia. One day after insertion of a urinary catheter, he began producing urine with a deep purple colour. There was no history of intake of medication, food colouring, or special food items that may alter the urine colour. The urine sample was alkaline (pH 8.3), and *Proteus mirabilis* urinary tract infection was diagnosed. This syndrome resolved after treatment with ceftazidime. Purple urine bag syndrome (PUBS) is a rare syndrome associated with alkaline urine and some urinary tract infections, and is more frequently observed in chronically catheterized and constipated women (Ribeiro et al., 2004). The colour is seen when the pigments indirubin or indigo blue interact with the plastic of the catheter or urine bag. These pigments develop by the transformation of indoxyl sulphate (a metabolite of tryptophan) because of the presence of urinary bacteria possessing indoxyl phosphatase/sulphatase activity (mainly *Pseudomonas aeruginosa, P. mirabilis, Morganella morganii, Escherichia coli, Providencia stuartii* and *Providencia rettgeri*) (Dealler et al., 1988). PUBS syndrome is considered to be harmless, does not influence the outcome of patients and disappears after treatment of the urinary tract infection. No special investigations should be undertaken (Ishida et al., 1999). *P. mirabilis* was isolated from our patient; to our knowledge this rare phenomenon has not been reported previously in a CLL patient.

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