

Curiositas

UNDERGRADUATE QUIZ

This patient presented to the Emergency Department with lower abdominal pain and rectal bleeding.



What is the cause for the presentation?

Dr Ian Bickle, Consultant Radiologist, Chesterfield Royal Hospital, North Derbyshire, UK

POSTGRADUATE QUIZ



Can you explain the appearance of the bony pelvis in this patient?

Dr Ian Bickle, Consultant Radiologist, Chesterfield Royal Hospital, North Derbyshire, UK

AND FINALLY...



Why is green a good choice for hospital linen?

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ANSWERS See overleaf

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CURIOSITAS: Answers

UNDERGRADUATE QUIZ

On this CT angiogram of the abdominal aorta, a thin fistulous tract arises from the anterior aspect of the infrarenal aorta and communicates with the third part of the duodenum. High attenuation signal is seen within the third part of the duodenum equituable to the contrast filled aorta. This is an aorto-enteric fistula.

Aorto-enteric fistulas may be primary or secondary, the latter occurring following reconstructive aortic surgery, be that open repair or an endovascular stent procedure.

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POSTGRADUATE QUIZ

This patient has undergone a Sharrard procedure, an operation as undertaken by John Sharrard of the Children's Hospital, Sheffield, England. The procedure was subsequently performed elsewhere by other surgeons. Radiologists and clinicians may incidentally observe this bizarre appearance of the pelvis and be curious to its origin.

The chief elements of the procedure consist of an iliopsoas transfer, undertaken to provide hip stability for patients with hip abductor weakness. In this case, the patient has severe spina bifida. The iliopsoas muscle is transplanted from the lesser trochanter of the femur, through a surgically created hole in the wing of the ilium. It is then attached to the greater trochanter of the femur. The evidence of this procedure having been performed on a plain radiograph is a large bony 'window' in the mid ilia.

For interest, the components of an external urethral sphincter are also evident in this radiograph.

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AND FINALLY...

In 1914, American surgeon Harry Sherman realised that the glare from white-coloured hospital textiles and surfaces adversely affected his anatomical discernment. He thus created a "spinach green" operating theatre with all walls and textiles coloured the same, green being the complementary colour of red in the traditional RYB colour model. This enabled the operator or medical staff to easily and readily spot traces of blood on those surfaces as well as focus on the minute details and fine features of wounds.^{1,2}

It is well known that prolonged focus on one colour can result in lingering pseudo-negative afterimages of its complementary colour once the gaze is shifted from the original subject of focus, owing to ocular pathways for that colour becoming fatigued due to prolonged stimulation and all the other pathways working normally.^{3,4} During medical procedures, physicians and surgeons frequently need to focus on wounds, openings and interior tissue most of

which appear vividly red. Blinking or shifting away from such periods of focus result in green "floaters" or "ghosts", afterimages of the subject in the complementary colour of the original. These potentially distracting, persistent green afterimages obviously will blend into green surroundings and ambience better than white or any other colour. Additionally, upon prolonged viewing of one particular colour, the eye becomes desensitized to it. Sustained focus on the bloody innards of a patient soon compromises ocular acuity as the colour appears to fade in the mind, rendering the medical staff incapable of discerning its nuances and performing the medical procedure well. This fading is an expression of the body's general tendency to become desensitized to any unvarying sensory stimulus.^{5,6} The availability of immediate green surroundings, i.e. hospital textiles, enables the physician or surgeon to quickly switch their stimulus before it saturates their red colour pathway.

We are evolutionarily hardwired to become alert and vigilant upon seeing red, it being the colour of blood, whether of prey, predator, or oneself. On the other hand, blue stimulates thought and intellect, and makes it difficult to pacify or tranquilise the patient.⁷ Green on the other hand, tends to placate the viewer.⁸ Green linen is likely to help ease a patient into a more convenient state to carry out a medical procedure. Thus, in every regard, green is the best choice of colour for Hospital textiles.

1. Sherman HM. The Green Operating Room at St. Luke's Hospital. *Cal State J Med.* 1914;12(5):181-183.
2. Green-Armytage P. Complementary Colors. *Dans: Encyclopedia of Color Science and Technology.* Springer New York; 2016. DOI: 10.1007/978-1-4419-8071-7_264
3. Barber TX. Hypnotically Hallucinated Colors and Their Negative After-Images. *The American Journal of Psychology.* JSTOR; 1964;77(2):313. DOI: 10.2307/1420146
4. Erickson MH, Erickson EM. The hypnotic induction of hallucinatory color vision followed by pseudo-negative after-images. *Journal of Experimental Psychology. American Psychological Association (APA);* 1938;22(6):581-8. DOI: 10.1037/h0060512
5. Poletti M, Rucci M. *Eye movements under various conditions of image fading.* *J Vis.* 2010 Mar 24;10(3):6.1-18. doi: 10.1167/10.3.6.
6. Clowes MB. A Note on Colour Discrimination under Conditions of Retinal Image Constraint. *Optica Acta: International Journal of Optics.* Informa UK Limited; 1962;9(1):65-8. DOI: 10.1080/713826405
7. Mehta R, Zhu R. Blue or Red? Exploring the Effect of Color on Cognitive Task Performances. *Science. American Association for the Advancement of Science (AAAS);* 2009;323(5918):1226-9. DOI: 10.1126/science.1169144
8. Jalil Nab, Yunus RM, Said NS. Environmental Colour Impact upon Human Behaviour: A Review. *Procedia - Social and Behavioral Sciences.* Elsevier BV; 2012;35:54-62. DOI: 10.1016/j.sbspro.2012.02.062

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