VOLUME - 11, ISSUE - 04, APRIL - 2022 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Internal Medicine

GREEN URINE

Dr. G. R. Subbu* MD, FICP, FRCP (G), Sr. Physician. *Corresponding Author

ABSTRACT Any change in the colour of urine may disturb both patients and physicians. Colour changes may be due to drugs, dye, infections, and fistula. Green-collared urine is a rare presentation. We present a case of green-coloured urine due to pseudomonas aerogenosa infection.

KEYWORDS : Green urine, pseudomonas infection.

INTRODUCTION

The normal colour of urine is straw-yellow. Any colour change is not innocuous always. The majority of these cases maybe not be significant. A proper history, physical examination with laboratory test helps in the diagnosis. We present a case of cirrhosis with HCC (hepatocellular carcinoma) and green urine.

CASE REPORT

A 61-year-old male patient was on treatment for liver cirrhosis with portal HTN and DM of 15 years duration. 11 months ago he was diagnosed to have HCC in addition to this. He developed abdominal pain as part of HCC, his general condition started deteriorating and he was admitted for terminal care, bladder was catheterized. After a week his urine became turbid and green colour (Fig 1 and 2). Urine culture was isolated with pseudomonas aerogenosa growth. Periodical ascites tapping were following and no evidence of any fistula. He was treated as per the urine sensitivity results. But patient succumbed to the primary illness.

General and physical examination was supportive of cirrhosis. No features of hepatic failure.

Investigations. Blood: Hb - 9gm%, TC – 5900/cmm, ESR-78mm/1Hr, Platelet count – 90000/cmm, RBS -156 mg%, Sr.Bil – 2.1mg%, SGPT – 171 IU/L, SGOT – 71 IU/L, Sr. Alk PO_4 – 141 IU/L, Sr. Prot – 6.8gm%, GGT- 37 U/L, uric acid 6.8mg %, Urea: 44mg%, creatinine: 1.1mg% . Urine: Pus cell - 40 to 60/field. Urine culture – Pseudomonas aeroginosa growth were isolated. USG Abdomen: Features of HCC and cirrhosis with moderate ascites. Ascites fluid - light yellow coloured.

DISCUSSION

Maintaining the normal colour of urine important for a healthy life. It is normal for human urine to be straw-yellow in colour or to range from pale yellow to deep amber in colour. Around 20 different colours of urine have been identified since ancient times [1].

The Urochrome in urine gives it its usual yellow colour. In addition to urobilin and uroerythrin also contributes to normal urinary colour [2]. Abnormal colours such as red, orange, brown, green, blue, whitish, etc. are also noticed. Factors influencing the colour changes include urinary concentration, pH, metabolic products, and endogenous pigments like haemoglobin, myoglobin, bilirubin, uric acid, and homogentisic acid.

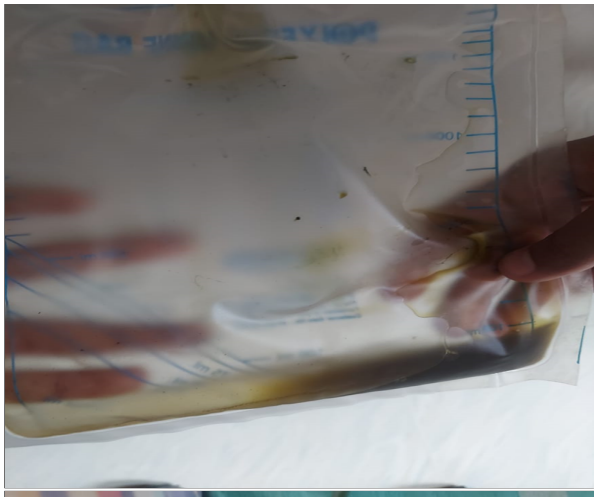
Causes Of Green Urine.

Drugs: Propofol, Quinol derivatives, Amitryptiline, metoclopramide, intravenous Phenergan, Cimetidine, Flupirtine, Zaleplon, Phenylbutazone, Metoxantrone, Promethazine, Indomethacin, triamterene, Listerine and Flutamide. In this conditions urine colour may green but will be clear.

Pigment: Methylene blue, cosmetic blue number-1, indigo blue and indigo carmine.

Infections: Urinary infection with Pseudomonas aerogenosa due to release of pigments like pyocyanin and pyoverdin [3]. Green and turbid urine indicate an infection (cf. drugs/dye induced green urine usually clear).

Poisoning: Herbicide ingestion (e.g. imazosulfuron), food colouring, pathologies (biliverdin in urine, Hartnup disease, familial indicanuria, meconium aspiration, enterovesical fistula with loss of bile).



CONCLUSION

Urine colour changes can be an important clue in diagnosing many diseases. Due to the production of the pigment pyocyanin, pseudomonas aerogenosa can cause green turbid urine. Urine examination with culture may help in the diagnosis.

REFERENCES:

1. J. A. Armstrong, "Urinalysis in western culture: a brief history," Kidney International, vol. 71, no. 5, pp. 384–387, 2007.
2. R. M. Hsu and L. B. Baskin, "Laboratory evaluation of discoloured urine. When is it haematuria?" Medical Laboratory Observer, vol. 32, no. 7, pp. 44–56, 2000.
3. T. P. S. Yip, S. L. Lui, and W. K. Lo, "Green urine," Hong Kong Journal of Nephrology, vol. 4, no. 2, article 114, 2002.