**THE CYANOSED NORMOXIA GENTLEMAN: A rare presentation of dapsone-induced methaemoglobinemia**

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**Introduction:**

When encountering a cyanosed patient, we often anticipate a tachypneic patient with severe hypoxia in their blood gas. What if these patients don’t exhibit severe tachypnea or hypoxia? This is possible in methaemoglobinemia, a condition whereby there is oxidation of iron from ferrous form (Fe 2+ ) to ferric form ( Fe 3+) which induces a haemoglobin structural change that shifts the oxygen dissociation curve to the left, reducing the unloading of oxygen at the tissues as well as the oxygen carrying capacity.

**Description:**

We present a 44 year old Chinese gentleman with HIV and multiple prior admissions for PCP (Pneumocystis Pneumonia). He was started on Tablet Dapsone 200mg OD during his clinic appointment. He came to us with a complaint of generalised rashes 4 days after initiation of Tablet Dapsone with a one week history of fever . His vital signs are;

BP 127/77

HR 127

T 38.7

SPO2 88% under RA

RR 20

He was cyanosed over the lips and peripheries.

ABG under HFM (High Flow Mask) 15L/min:

PH 7.487

PCO2 27

PO2 435.3

S02 96.7

LAC 1.7

HCO3 20.6

BE -3

SPO2 under High Flow Mask 15L/min did not exceed 90%.

He was then started on HFNC (High Flow Nasal Cannula) 60L/60%

ABG repeated under HFNC 60L/60%

PH 7.5

PCO2 26.3

PO2 255.1

MethB 14.3%

LAC 1

HCO3 20.7

BE-2.7

Despite the high level of HFNC setting, his saturation did not exceed 90%

**Outcome:**

The patient was given IV Methylene Blue 1mg/kg over 30 mins. His peripheral cyanosis resolved after an hour. Methaemoglobin levels reduced from 14.3% to 4.6%.

His saturation increased to above 90% after which he was weaned off HFNC. He was admitted and eventually weaned off oxygen support.

**Conclusion:**

Methaemoglobinemia rarely presents in the emergency room but should appear in mind when encountering this classic phenomenon of a cyanosed patient with a huge difference between their saturation and pO2 on blood gas. It is imperative to note the drugs potentially causing methaemoglobinemia as we can anticipate the populations in which this disease can present. Prompt recognition of this entity is truly life-saving.