Hyperpigmentation in HELLP Syndrome: A Diagnostic Dilemma.

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BACKGROUND

HELLP (haemolysis, elevated liver enzymes, low platelets) syndrome is a life-threatening condition of pregnancy, believed to be along the same spectrum of disease as pre-eclampsia. Diagnosis is often obscured by unusual clinical presentations. Here we present a case of a 27yo G3P2 who presented at 37+6 with suspected Addison's disease, though was later diagnosed with HELLP syndrome.

Table 1 – Patient biochemistry

Test	Result**						Ref Range
	7 Mar	23 Nov	24 Nov	25 Nov	27 Nov	20 Dec	
Haemoglobin	132	154	150	129	118	124	110 – 160 g/L
Haematocrit	0.38	0.45	0.43	0.38	0.35	0.39	0.35 – 0.48
Platelets	243	155	165	226	306	384	150 - 450 x10^9/L
Creatinine		**111**	**108**	**92**	**77**	65	<70 umol/L
AST		**540**	**496**	**123**	**59**	30	<41 U/L
ALT		**675**	**644**	**340**	**157**	27	<41 U/L
Urine PCR		**75**		**31**		9.1	<30 mg/mmol
24hr Cr clearance				**40**			78 – 150 mL/min
Cortisol (AM)			**973***	275		292	110 – 550 nmol/L
ACTH			10			4.1	<46 pg/ml
Glucose		3.2				3.5	>3 mmol/L

Note: Bold indicates deranged result;
*postpartum - likely normal given physiological stress;
** dates have been changed but the timeline is accurate

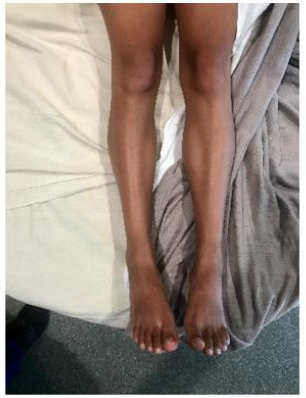
CASE

'SH' was referred to hospital at 37+6 by her GP with recent drastic skin hyperpigmentation, BSL of 3.2 and increased nausea/vomiting/headache/fatigue. SH had normal BP throughout admission (~125/80 mmHg), though her biochemistry was grossly deranged (table 1), leaving an uncertain differential. The hyperpigmentation was uniform across her entire body, including palms and soles (picture 1), this along with the low BSL lead the treating team to initially suspect Addison's disease. Endocrine were involved and agreed with the tentative diagnosis of Addison's, with plan to review after early morning Cortisol + ACTH + Aldosterone + Renin levels. However, two hours after being assessed SH spontaneously ruptured membranes (at 21:55) and proceeded rapidly to normal delivery of a live male infant (at 22:28) weighing 3575g with APGARs $9^{1}9^{5}$. Subsequent investigation ruled out Addison's disease (table 1) and gastroenterology involvement with full liver panel and USS ruled out primary liver pathology. Haemachromatosis was also excluded. Diagnosis of HELLP was made by exclusion. Subsequent follow-up showed complete clinical and biochemical resolution.

DISCUSSION

Factors supporting the diagnosis of HELLP are the elevated liver enzymes, borderline low platelets, the precipitous birth which is typical of PET/HELLP, and complete post-partum resolution. However, the case was obscured by normal BP and the uniform hyperpigmentation which resolved post-partum (picture 2). This case highlights both the potential for atypical HELLP presentations, and the importance of excluding other potentially serious differentials such as liver and endocrine conditions.

Picture 1:
Day 0 post delivery



Picture 2:
Day 3 post delivery