When the skin gives the alarm

A 74-year-old man was referred to our intensive care unit after a 2-day history of dehydration due to gastrointestinal losses and fever. On admission, his heart rate was 120 beats per minute, his blood pressure was 120/70, his respiratory rate was 30 breaths per minute and his temperature reached 39.2°C. Physical inspection revealed a livedo reticularis made of macular, violaceous, connecting rings that formed a netlike pattern spreading from the lower limbs up to the abdominal wall (figure 1). Arterial blood gas analysis showed a metabolic acidosis and a raised blood lactate level (6.5 mmol/l). His mottled skin almost completely disappeared after a fluid challenge with 1 litre of normal saline solution. Vasomotor livedo reticularis is related to a slowdown of the blood flow in the dermic venules due to a local vasoconstriction. It acts as an early warning sign of poor tissue perfusion in patients with hypovolaemia or sepsis. Despite a normal falsely reassuring arterial blood pressure, the early recognition of vasomotor livedo reticularis in such patients should lead the clinician to start a prompt and vigorous resuscitation strategy.1

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Figure 1 Typical livedo reticularis of the lower limbs acting as an early sign of poor tissue perfusion in sepsis or other hypovolemic states.

Emergency casebook

model the situation of witnessed arrest in the emergency department.

Our patient suffered a cardiac arrest in hospital, with severe acidosis at return of spontaneous circulation. He survived without any neurological impairment. We are aware of only three cases with a complete recovery with a lower temperature corrected pH. Profound acidosis is often interpreted by physicians as reflecting a prolonged period of circulatory standstill that inevitably leads to hypoxic brain injury. Our case illustrates that this assumption may be wrong when the majority of the metabolic acidosis has accumulated due to relative circulatory insufficiency before arrest and there is prompt recognition and resuscitation from cardiac arrest.

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