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## Objective

Chronic salicylate poisoning (CSP) has been reported in the literature as being masked in patients presenting with a septic-like illness<sup>[1]</sup> and most commonly occurs in children and the elderly<sup>[2]</sup>. Urinary clearance of salicylate in CSP is known to be lengthy<sup>[3]</sup> with haemodialysis often being used in severe poisoning<sup>[4]</sup>. We report a patient diagnosed with sepsis, acute kidney injury and acquired factor VII deficiency, and later found to have an elevated serum salicylate concentration.

## Case Report

The UK NPIS was contacted regarding a 47-year-old female whom presented to A&E in a state of incoherence with an unclear 48-hour history of malaise, confusion and agitation. The patient was hypoxic, hyperventilating and subsequently transferred to intensive care where sepsis was pursued as an initial diagnosis.

The patient was intubated with a metabolic acidosis (venous pH 7.00, bicarbonate 12 mmol/L), raised CRP (380 mg/L) & WCC ( $24 \times 10^9/L$ ) and an AKI (urea 12 mmol/L, creatinine 130  $\mu\text{mol/L}$ ). CXR revealed left-sided pulmonary consolidation. PT was greatly elevated at 200s (INR 18.0) – local haematology advice suggested acquired factor VII deficiency.

A serum salicylate concentration sent eight hours prior to contact was recorded as 335 mg/L – a repeat level at time of contact revealed 290 mg/L. The patient's family searched the residence and located numerous empty aspirin packets supporting salicylate overdose.

NPIS advice included urine alkalinisation with 8.4% sodium bicarbonate, review of CT head and supportive management. Haemodialysis was considered but recommended only in the instances of pulmonary oedema or fluid overload.

Repeat salicylate concentration at follow-up was recorded as 186 mg/L – sodium bicarbonate was then discontinued due to hypokalaemic concerns. The patient continued to improve on follow-up five days later, and was discharged from hospital twelve days post-admission.



## Conclusions

The frequency of patients presenting with CSP is currently unknown. Serum salicylate concentrations should be considered in patients presenting with an unclear history and features of 'sepsis', neurological impairment, metabolic acidosis, pulmonary oedema and renal dysfunction.

## References

- [1] Glisson JK, Vesa TS, Bowling MR. Current management of salicylate-induced pulmonary edema. *Southern Med J.* 2011;104:225-232.
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  - [3] Wrathall G, Sinclair R, Moore A, Pogson D. Three case reports of haemodiafiltration in the treatment of salicylate overdose. *Hum & Exp Toxicol.* 2001;20:491-5.
  - [4] Fertel BS, Nelson LS, Goldfarb DS. The underutilization of hemodialysis in patients with salicylate poisoning. *Kidney Int.* 2009;75:1349-1353.
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