

Case Report: A Strange Case of Self-Harm

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Abstract

29.06.2022 h 9:04 p.m. patient taken with ambulance to the ED for stab wounds described by family members as self-inflicted. Priority access: code RED for dynamics, bleeding from abdominal wound, hypotension and desaturation.

78-year-old male. Right-handed. Denies symptoms, uncooperative when asked to explain the dynamics of the trauma. Reported head injury in May 2022 with 24-hour hospital observation and subsequent discharge.

Keywords: *Self-Harm; RED; Hypotension; Trauma*

Introduction, Case Report and Discussion

Fibrillating hypertensive heart disease, epilepsy secondary to ischaemic stroke, chronic obstructive pulmonary disease, Alzheimer's disease, cholelithiasis with single stone < 1 cm, asymptomatic benign prostatic hypertrophy.

04.2020 neck injury with penetrating trauma and haematoma treated with surgery following an unwitnessed domestic fall.

Vaccinated COVID-19 with 3 doses. No previous infection Sars-CoV-2 related.

Social history - Retired, autonomous in ADLs and IADLs, smoker. Not reported SUD. No STDs. Not sexually active. Lives at home with wife and adjacent to children. Family members at ambulance arrival report that the self-injury occurred in the context of a family quarrel, not episodic.

Family history - No known family illnesses.

Therapy - Amiodarone 200 mg 1 cp twice daily, furosemide 25 mg in the morning, potassium canrenoate 50 mg in the afternoon, edoxaban 60 mg/day, alfuzosin hydrochloride 10 mg cp/evening, levetiracetam 1500 mg twice daily.

Allergies - Not reported.

Clinical examination

- **Vital signs** - Pale, cold sweats, BP 90 - 60 mmHg, HR 100 bpm, FR 24, SpO₂ 93% in room air, TC 36°C tympanic, Weight 75 kg, Height 170 cm, BMI 26.
- **General assessment** - No acute distress condition; awake, cooperative, stupor.
- **Head and neck** - Pinkish/pale mucous membranes; neck wound, extension 2 cm parallel to the lateral margin of the middle section of the left sternocleidomastoid muscle.
- **Lungs** - Clean lungs no wheezes, rales or rhonchi.
- **Heart** - Valid and rhythmic heart tones, slight tachy-frequency; no murmurs; no jugular turgor; radial pulses isosfigmic and consensual.
- **Abdomen** - Globular, tense, peristalsis present, femoral pulses isosfigmic and consensual. Evidence of 3 wounds in left hemiabdomen, 2 of which in upper quadrant with mid-lateral oblique course, 4 cm long, and a similar one in lower abdomen, with spontaneous bleeding of venous type with low flow rate and soft tissue swelling; no other secretions evident from the wounds.
- **Genitals** - Multiple apparently superficial stab wounds on rod ventrally and prevalent near abdominal junction.
- **Arms and legs** - No deformities, warm and well perfused; no vascular, sensory-motor deficits.
- **Nervous system** - No focal neurological deficits.
- **eFAST** - Pleural sliding detectable in all quadrants examined, no pleural effusion, A-lines pattern; no pericardial effusion; abdominal aorta of regular calibre; no free fluid in Morrison's pouch; no free fluid in splenic lodge; anechogenic flap in pelvic cavity, corresponding to the distal psoas about 1 cm thick.
- **Laboratory examinations** - Hemochrome [GR 3.65 10¹²L, HG 112 g/L, HCT 33%], blood glucose 8.99 mmol/L, PT 1.47; PCR 33.2 mg/L, creatinine 77.9 mmol/L, eGFR 82 ml/min; Na, K, Cl, AST, ALT, total and fractionated bilirubin, urea and PTT within normal range. RT-PCR Sars-CoV-2 Negative.

Samples for cross-testing requesting 4 units of GRC and 900 ml of fresh plasma concentrate

Imaging - At 9:14 p.m. request Angio-TC neck vessels-TC chest and abdomen with contrast medium. The salient findings were: "haematoma of the anterior peritoneal contour in contiguity with the bundles of the rectus muscle and internal and external left oblique (estimated volume 327 cc) and along the gastric curvature descending into the parieto-colic bilaterally (estimated volume 659 cc) fed by arterial branches starting from the gastro-epiploic plexus, bubbles of cutaneous-subcutaneous emphysema in the bundles of the rectus muscle". Vessels of the neck, lungs, heart, aorta, spleen, kidneys, adrenals, pancreas, bladder within normal limits (Figure 1 and 2).

Therapy - Oxygen in goggles at 2 lt/min, volemic filling with SF 500+500, bolus 2 ampoules tranexamic acid, 250 IU Ig-tetanus, 1 ampoule noradrenaline 0.05 mcg/kg/min for refractory hypotension to volemic support.

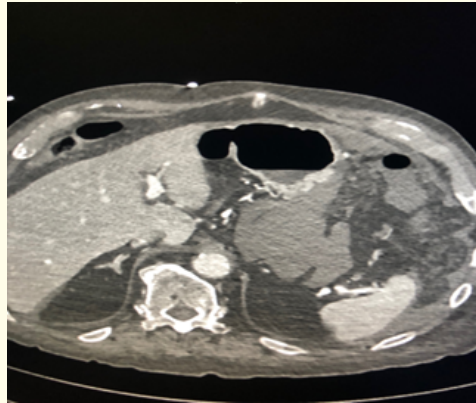


Figure 1: CT transverse axis, arterial phase. Posterior perigastric hemorrhagic spread.

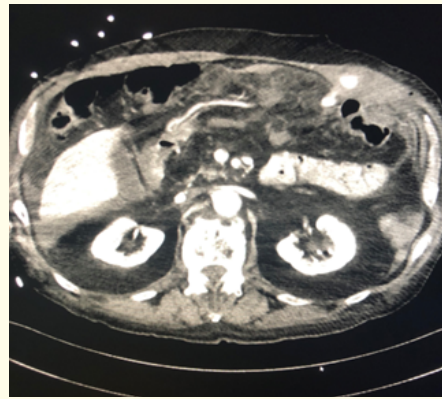


Figure 2: CT transverse axis, arterial phase. Bubble in subcutaneous left side, hematoma of the abdominal wall on the peritoneal profile.

Team working - MD, 2 Nurses, 1 social-health operator

- Surgeon on active guard, Resuscitator, Urologist and Operating Block pre-alerted immediately after primary patient assessment.
- MD and 2 Nurses - See above.
- Urologist - Bladder catheter placement with clear urine, inspection of penile shaft without evidence of deep lesions and suturing of wounds after ring-bloc anaesthesia.
- Resuscitator - CVC in right IGV and right radial arterial access.
- Surgeon - Secondary assessment and stand-by for emergency surgery.

Dependence time - CT scan reported at 23:15 and admission at 23:30 with direct access to operating theatre. Total management time in ED 2h 26m.

Hospitalization - At 00:00 hours on 30.06 started surgery with median laparotomic access and execution of splenectomy for laceration to the hilum, coagulation vessels of the small omentum, muscle-fascial suture in place of the 3 wounds all resulted penetrating. Washing of the peritoneal cavity. Right easy-flow drainage in retrocavity of epiploon and left in splenic lodge. End of operation h 1:40. Intraoperative blood loss estimated 2000 ml. Transfused 2 U GRC and 900 cc Plasma; haemodynamics sustained with noradrenaline. Subsequent transfer to ICU where he remained until the following day [transfused 2 GRC, noradrenaline decalage, active diuresis]. The patient was transferred to the surgical Department after two days of observation in intensive care. The postoperative course was characterised by CVC infection due to gram-positive cocci treated effectively with a combination of linezolid and ampicillin/sulbactam.

The patient was discharged on 12/7/2022 and is undergoing regular outpatient follow-up, as well as being indicated for pneumococcal and *Haemophilus influenzae* vaccination due to splenectomy.

Conclusion

Primary assessment, prescription of first-line therapy, pre-alert team, EE request, transfusion cross-testing, eFAST and imaging managed within the first 30' of arrival in ED.

Volemic and haemodynamic support therapy was implemented respecting the limit between haemodynamic instability and minimal support in the presence of a haemorrhagic patient.

The placement of the CVC was decided before performing the CT scan for the position checks of the case, so the examination although requested and validated at 9:15 p.m., was performed later.

The report turned out to be more complex due to the picture found.

Teamwork went smoothly but we believe more leadership would have reduced the time [1-4].

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