

Cardiac arrest induced by a giant uterine leiomyoma

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DESCRIPTION

A 37-year-old woman with Sjögren's syndrome was brought to our emergency department in a state of cardiopulmonary arrest (CPA), ventricular fibrillation. She had noticed but not investigated a progressively enlarging abdominal mass since 3 years prior, and had felt general fatigue for 2 weeks. A large spherical mass was palpated in her abdomen. Severe hyperkalaemia (10.3 mEq/L), anaemia (haemoglobin 7.2 g/dL) and elevated creatinine level (3.2 mg/dL) were noted. Pregnancy test was negative. Despite cardiopulmonary resuscitation in the left decubitus position, multiple bicarbonate injections and repeated cardiac defibrillation, her hyperkalaemia was refractory. She died about 1.5 h after hospital arrival. Postmortem CT for autopsy imaging revealed a giant intra-abdominal mass (figure 1). Resection of the mass (figure 2) was performed postmortem.

The resected mass confirmed the pathological diagnosis of uterine leiomyoma with slight central necrosis: the leiomyoma was 30×35×30 cm and 17.4 kg, among the largest leiomyomas ever reported. A uterine leiomyoma can reportedly induce renal failure because of ureter or renal compression.¹ Moreover, necrosis of the leiomyoma and haemostasis secondary to inferior vena cava



Figure 2 Leiomyoma resected postmortem.

compression in this case might have contributed to renal failure and hyperkalaemia. For emergency resuscitation of such patients, one must consider resuscitation in the left decubitus position, as with the resuscitation of women during late pregnancy, because this positioning reportedly increases cardiac output.² Furthermore, emergent laparotomy and caesarean section can rescue both the mother and fetus in late pregnancy.² Emergent laparotomy might be an effective intervention in patients with CPA with a giant abdominal mass, independent of the aetiology of the mass.³



Figure 1 Giant leiomyoma on abdominal CT.

Learning points

- ▶ An extremely large leiomyoma can induce cardiac arrest because of several physiological mechanisms.
- ▶ In emergency resuscitation of patients with a giant abdominal mass, consider resuscitation in left decubitus position or emergent laparotomy.
- ▶ The abdominal mass in this case is among the largest leiomyomas ever reported.

Competing interests None declared.

Patient consent Obtained.

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