Anesthesia of a patient who underwent resection of small bowel leiomyosarcoma

Sir,

A case of intra-operative acute rise in both blood pressure and blood sugar during manipulation and excision of a leiomyosarcoma of the ileum and a liver secondary is presented. The possibility of a hormonal release is postulated.

AMH is a 75 year old patient who presented with rectal bleeding a single episode of passing altered blood of moderate amount. He had one similar attack a year ago, which was not investigated at that time. He had no past history of diabetes or hypertension and was on no regular medication. Physical examination showed a pulse of 85 beats/min and a blood pressure of 130/80 mmHg. Abdominal examination revealed a mass that was limitedly mobile from side to side. The patient was completely unaware of it and had no abdominal symptoms. Otherwise physical examination was negative. Investigations showed a hemoglobin of 11.5 gms and urine was negative for sugar and acetone. Ultrasound revealed a mass (15/13/9 cm), well-defined of mixed echogenicity in the left lower para-aortic region. A barium meal and follow through reported a large mass of soft tissue density displacing the bowel with no evidence of infiltration. Both ultrasound and contrast radiology suggested a mesenteric node or a retroperitoneal sarcoma. No pre-operative medication was given. Induction of general anesthesia was carried out using 400 mg of thiopentone, 100 mg of suxamethonium and later maintenance with 7 mg of pancuronium and 25 mg of pethidine. The patient was ventilated with N2O/5 liters/min and 02/3 liters/min. Intravenous fluids used were: a liter of 5% dextrose following atropine injection and 1/2 liter of normal saline. The pulse reading showed a tachycardia of 110 beats/min following atropine injection, which returned to normal thereafter. The pulse rate was maintained at 85-95 beats/min and the blood pressure was at a systolic of 130-145 and a diastolic of 80-90 mmHg during induction and intubation. At laparotomy a small bowel tumor arising distally from the jejunum and part of the ileum and adherent to the retroperitoneal tissues was found. The sigmoid colon and upper rectum were peeled away and resection was carried out. A similar lesion of small size (4 X 2 cm) on the anterior surface of the liver was also resected. During mobilization of the mass the pulse rate rose to 105 beats/min and the blood pressure gradually reached a peak of 240/140 mmHg. The patient did not recover form anesthesia and a repeat intravenous dose of 60 mg frusemide was given. The blood pressure was then down to 160/100 mmHg. The patient was still far from responding. A random blood sugar reading showed hyperglycemia of 420 mg/100 ml. Intravenous regular insulin was given in small repeated dosage until reaching 40 international units. The blood sugar came down to 130 mg% when the patient showed signs of recovery. It took 2 hours after surgery for the patient to be fully awake, follow up of 8 months showed a normal reading of both the blood pressure and blood sugar. Histopathology showed leiomyosarcoma in both lesions with free margin of resection.

Primary gastrointestinal sarcoma has been reported to account for 2% of all adult sarcoma admission1 and for 1-3% of all malignant gastrointestinal neoplasms. The tumor has a poor prognosis.1 The clinical presentation depends on the growth pattern, the exenteric type presents as an abdominal mass or perforation while the endoenteric type presents as bleeding or obstruction. Despite the huge size of the mass, the patient was utterly unaware of it. Surgery remains the most effective mode of treatment with curative resection rate of 50%.3 We report a patient with intraoperative transient elevation of both blood pressure and blood sugar without pre or postoperative similar elevation. The incidence followed tumor mobilization and reached its peak during resection of an egg size hepatic secondary. No hormonal assay was done during surgery but the self limiting nature of both hypertension and hyperglycemia point to the possibility of transient secretion of a potent mediator.

Anderson et al reported a case of a renin-secreting ovarian leiomyosarcoma presenting with hypertension and hypokalemia.4 Tumor like lesions affecting the small bowel had been reported with aberrant pancreatic tissues encountered at the terminal ileum but without endocrine activity.5 Other primary neoplasm of the small bowel is the carcinoid tumor, which presents commonly as intestinal obstruction.6 When hepatic secondaries occur carcinoid syndrome will manifest with flushing, diarrhoea, asthma like attacks and an elevated urinary 5-hydroxy indolacetic acid (SHIAA). Some workers classified gastrointestinal sarcomas as stromal or autonomic nerve tumors on the basis of immunohistochemistry and electron microscopy, however, no active secretory hormones were detected.7

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Infected rectus sheath hematoma: An unrecognized cause of intestinal obstruction

Sir,

We would like to report a case of intestinal obstruction with unusual cause.

A 64-year old Saudi man was admitted with a three-day history of colicky abdominal pain, abdominal distension, vomiting, and absolute constipation. He also had a mass in the suprapubic area to the left of the midline, which has been presented for ten days. The patient had a history of abdominal wall trauma caused by road traffic accident giving rise to a superficial skin abscess in the infra-umbilical area left to the midline but higher than the site of the mass. This infection resolved with drainage and debridement. On examination, the patient was in pain, mildly dehydrated, temperature 37.7°C, and pulse 103 beats/min. The abdomen was slightly distended with a small healing ulcer in the infra-umbilical area left to the midline. There was 5 x 5cm mass slightly lower than the ulcer. It was irreducible, mildly tender, with positive Fothergill's sign (the mass does not disappear on abdominal wall contraction). The bowel sounds were exaggerated. Investigations showed WBC 11000/cμm, 3 NA 133mmol/1, and Urea 8.0mmol/1. An abdominal X-ray revealed dilated small bowel with multiple fluid levels. The provisional diagnosis suggested subacute intestinal obstruction secondary to obstructed hernia. He was initially resuscitated but with little response, he was then taken to the theater and RSH was found. The hematoma was evacuated, hemostasis secured, and two closed drains left in the rectus sheath and in the subcutaneous tissue. The patient failed to improve and continued to be in pain, febrile, with distended abdomen and several episodes of vomiting. A CT scan of the abdomen (Figure 1) showed collection in both subcutaneous tissue and rectus sheath, with small bowel, which dilated and adherent to the peritoneum just beneath the collection site. The CT scan of the abdomen and barium enema did not demonstrate any intra-abdominal pathology. So, the collection was drained and the wound left opened. The patient continued to receive 2 antibiotics (cefuroxime and metronidazole), and intravenous fluid with nasogastric decompression, and daily wound dressing. Following these procedures, the patient rapidly improved and became afebrile. He quickly opened his bowel and gradually started on oral intake. The wound was granulating well so secondary closure was done after seven days.

Bleeding in the rectus sheath simulates an acute surgical abdomen. It can be caused by trauma to the abdominal wall, which is either accidental, such as blunt or penetrating, or iatrogenic as in post lower abdominal surgery, for the other causes (Table 1). It is also reported to occur as a complication of laparoscopic cholecystectomy, laparoscopic herniorrhaphy, after anterior lumbar fusion, after insulin injections, and subsequent to other lower abdominal operations. It occurs more often in female (50-100%) than in male. It usually occurs in the right side and below the umbilicus. Inferior epigastric vessels, especially the artery, are the usual source of bleeding. It is more common in fifth decade of life.  

Figure 1 - CT scan of the abdomen show the hematoma in the Anterior Rectus Sheath. (arrowed)