Case Study: An intra-uterine pregnancy complicated by an invasive molar pregnancy

Case report of an intra-uterine pregnancy complicated by an ectopic invasive molar pregnancy

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ABSTRACT
We report on a rare case of a woman presenting with an early intra-uterine pregnancy, lower abdominal pain and a right-sided pelvic mass. She developed an acute abdomen and an emergency laparotomy was performed. Histology revealed an ectopic invasive molar pregnancy. To our knowledge, this is the first reported case of a normal intra-uterine pregnancy with an ectopic invasive molar pregnancy.

Case report
The patient is a 32 year old P1G2 presenting to the outpatient clinic with a main complaint of lower abdominal pain, nausea and vomiting. The pain was present for five days prior to admission. She gave a history that she was approximately two months pregnant. Medical and surgical history was normal. She had one previous normal vaginal delivery and the pregnancy was uncomplicated. The last normal menstruation according to her was seven weeks prior to the date she was first seen. On examination the blood pressure was 110/50 and the pulse rate was 92 beats per minute. The abdomen was assessed to be tender and a right-sided pelvic mass was palpable. There was no vaginal bleeding. Ultrasound was performed revealing a nine week intra-uterine pregnancy with fetal heart activity present (Figure 1). In addition, there was also a large extra-uterine mass measuring 7.5 x 6.9 cm. The mass had a solid appearance and was thought to have an increased vascularity. A provisional diagnosis was made of a nine week intra-uterine pregnancy with a possible uterine fibroid causing the pain. Biochemistry revealed a quantitative β-HCG value of 802011 IU/l, normocytic normochromic anaemia with a haemoglobin of 7.9 g/dl. CRP was 102 mg/l. The electrolytes were all normal. HIV test was non-reactive. She was treated symptomatically and discharged with follow-up arrangements made for an ultrasound examination by the fetal-maternal unit and for assessment of the mass by the gynaecological oncology unit.

Three days later she was admitted to the gynaecology ward after presenting to the emergency department complaining of severe lower abdominal pain. On examination she was fully conscious and she appeared to be pale. Blood pressure was 90/50 and pulse rate was 92 beats per minute. There was no history of vaginal bleeding. Her abdomen was very tender with guarding and difficult to assess due to severe pain. Ultrasound revealed an intra-uterine pregnancy, but there was no fetal heart activity present. She was at this stage assessed as having a missed abortion and the pain was thought to be caused by degenerative changes in the fibroid. Biochemistry performed revealed a further drop in the haemoglobin to 5.7 g/dl as well as a raised creatinine of 174 μmol/l, and a TSH of 0.05 mIU/l (normal range 0.49–5.66 mIU/l). Repeat quantitative β-HCG was 856974 IU/l. Chest X-ray was performed and reported to be normal.

Shortly after admission she developed an acute abdomen and hypovolaemic shock. She was resuscitated and booked for an exploratory laparotomy. At laparotomy there was about three litres of blood in the abdomen and in the pelvis on the right side a 7 x 8 cm extra-uterine vascular mass. The mass was separate from but closely adhered to the uterus and the right ovary. Removal of the mass resulted in severe haemorrhage from the uterus and right ovary, requiring an emergency hysterectomy and right oophorectomy. Post-operative recovery was uneventful.

Histology reported the presence of products of conception with focal suppurative inflammation in the endometrial cavity. The extra-uterine mass was reported as products of conception with features of hydatidiform mole. In sections taken from the serosal aspect of the uterine wall there were features of invasive hydatidiform mole. No pathology was noted in the right ovary.

The patient was advised post-operatively to receive adjuvant chemotherapy.
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Discussion
Heterotopic pregnancy refers to the simultaneous presence of more than one implantation site, often manifesting as an intra-uterine plus a tubal ectopic pregnancy. In pregnancies where assisted reproductive techniques are not being used, the estimated prevalence of heterotopic pregnancies is very rare and is estimated to be about 1 in 30,000 pregnancies. The incidence of molar pregnancies in South Africa is estimated to be approximately 1.2 per 1,000 deliveries.

Heterotopic pregnancy where one of the pregnancies is a molar pregnancy is quite rare. A literature search revealed two published cases with an ectopic pregnancy and an intra-uterine molar pregnancy. The first case the patient was diagnosed and treated for an intra-uterine molar pregnancy, and shortly after discharge presented with a ruptured ectopic pregnancy. The second case was diagnosed as a heterotopic pregnancy and the ectopic part was managed laparoscopically. The patient requested termination of the intra-uterine pregnancy and histology revealed a partial molar pregnancy.

Several cases of ectopic molar pregnancies have been reported in the literature. The majority of these cases presented similarly to non-molar ectopic pregnancy with amenorrhea and lower abdominal pain. This is a rare case of a heterotopic pregnancy with an ectopic molar pregnancy. The initial presenting symptom was lower abdominal pain, nausea and vomiting. The initial assessment was that there was a fibroid and the pain was due to degenerative changes in the fibroid. The possibility of an ectopic molar pregnancy was entertained because of the high level of β-HCG and the vascular appearance of the mass. Initially the plan was to be expectant as far as the pregnancy was concerned. The patient developed an acute abdomen and hypovolaemic shock, requiring resuscitation and emergency surgery.

This is to our knowledge the first reported case of a heterotopic pregnancy with an ectopic invasive molar pregnancy. Although extremely rare, the possibility of an extra-uterine molar pregnancy should form part of the differential diagnosis in cases of intra-uterine pregnancy complicated by the presence of a pelvic mass, high levels of β-HCG and low haemoglobin levels.

References:

South Africa’s Mobile Breast Check (MBCU) and Educational Unit

Cause Marketing Fundraisers (CMF) – the successful grantees for the donation of funds from the Pfizer Foundation and Pfizer South Africa – has recently launched the Mobile Breast Check and Educational Unit programme. They will be working together with a coalition of breast cancer NGOs namely Pink Link, Reach for Recovery and Look Good Feel Better. The Mobile Breast Check Unit (MBCU) will provide access for South African women to a mobile mammography screening facility as well as providing education on the topic of breast cancer and breast self-examination as well as patient rights.

The MBCU will initially be dispatched to the corporate and peri-urban areas around Gauteng. The unit will work in collaboration with community clinics to educate women on breast cancer, associated cultural stigma issues and the benefits of early detection. This will be done through easy-to-understand visual materials in vernacular, teaching correct breast self-examination techniques. The MBCU will work at provincial and regional hospitals where referral can be made to a tertiary institution with surgical and oncology services. There is also an aspect to this programme which will focus on the development of a statistical database to improve notification for breast cancer.

The mobile mammography unit is an eight meter, six ton, 1017 Atego Mercedes truck. The Computed Radiography (CR) unit is a Fuji FCIR Profect model CR-IR 363 reader capable of precise 50 micron imaging for fast mammography examinations. The Dell equipment on board the mammography truck includes two desktops and a server which will enable proper statistics to be taken on patients and recorded for future medical use. There will initially be three staff members manning this unit. These include a qualified and certified mammographer, an administration person and a driver.

The Educational Truck will travel the country providing educational sessions on self-examination and breast health awareness. It carries full AV equipment to run visual aid in all vernacular languages. Patients will be referred to the nearest local clinics should further intervention be required.

Cancer accounts for one in eight deaths globally – more than HIV/AIDS, tuberculosis and malaria combined. An estimated 80 percent of these deaths will occur in developing countries, which are least prepared to address their growing cancer burdens. Breast cancer alone is a national disease in South Africa affecting one in every 25 women.

Pfizer and The Pfizer Foundation has provided Cause Marketing Fundraisers, a section 21 company, a grant of USD 550,000 (R5.5 million), which will fund the MBCU.

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