

Complications of Anticoagulant Therapy in Ovulatory Women

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Shereen Z. Bhutta (Department of Obstetrics and Gynaecology, Jinnah Postgraduate Medical Centre, Karachi.)

Women of childbearing age are at times prescribed long term anticoagulant therapy. Besides regular assessment of coagulation profile for dose adjustment, little thought is given to complications associated with such therapy due to physiological events such as ovulation. This case illustrates such an event.

Case Report

A 27 years old primigravida was admitted in emergency to the department of Obstetrics and Gynaecology, Jinnah Postgraduate Medical Centre, Karachi with 2 days history of severe lower abdominal pain. She had a prosthetic valve replacement for severe mitral stenosis 7 months earlier and was taking Phenindione 25 mg daily following that. She had been married for 3 years and had an outlet forceps delivery of a live male baby 2 years ago. Her cardiac disease was diagnosed for the first time during pregnancy. The couple used the sheath for contraception. She had an irregular menstrual cycle with a period lasting 4 days occurring every 30 to 36 days. The last menstrual period was 27 days earlier and she had no vaginal bleeding since then. She was pale, lying flat in bed, with a feeble pulse of 110 per minute and blood pressure 90/50 mm Hg. Stenotomy scar was visible on the chest. A prosthetic murmur was audible over the mitral area. The abdomen was rigid with marked tenderness over the right iliac fossa. Vaginal examination provoked extreme pain on moving the cervix and therefore, the size of the uterus or the state of the appendages could not be assessed. A vague tender mass was palpable in the pouch of Douglas. She was diagnosed as a case of ruptured ectopic pregnancy. Emergency investigations revealed a haemoglobin of 8.5 g/dl. Urinalysis by dipstick was normal. Bleeding time was 5 minutes and clotting time 6 minutes. Blood was also drawn for determination of prothrombin time. Examination under anaesthesia showed a normal size uterus and a soft orange size mass in the pouch of Douglas. Culdocentesis yielded 10 ml of non-clotting blood. At laparotomy, 3 pints of blood clots, including a large orange size from the pouch of Douglas, were removed from the peritoneal cavity. The uterus, both the tubes and left ovary were normal. A ruptured thin walled cyst with a bleeding vessel, measuring approximately 6x4 cm was enucleated from the right ovary, which was then reconstructed ensuring haemostasis. There was no evidence of an ectopic pregnancy or bleeding from any other site in the peritoneal cavity. The abdomen was closed after saline lavage, leaving an intraperitoneal drain. Patient recovered uneventfully from general anaesthesia. She was transfused 4 units of fresh blood. Injection ampicillin 500 mg 6 hourly and metronidazole infusion 500 mg 8 hourly were prescribed. A persistent ooze of blood was noticed from the abdominal wound, which responded to application of a pressure pack for 12 hours. Her general condition, pulse and blood pressure remained satisfactory. There was no abnormal drainage through the intraperitoneal drain and no persistent bleeding was noticed from the venepuncture sites. She remained afebrile. The bleeding, clotting and prothrombin times remained approximately one and a half times normal for the first 48 hours. Injection heparin 5000 units subcutaneously 6 hourly was started from the third post operative day and injectable antibiotics were replaced by oral ones. Haemoglobin at this time was 11 g/dl. The skin stitches were removed on the seventh postoperative day. The wound had healed well. The histology of the specimen showed a corpus luteum cyst. Heparin was replaced by tablet Phenindione 25 mg on the eighth postoperative day and she was allowed home. On her 4 week follow-up visit, she was well and had finished a menstrual period the same morning. After consultation with her cardiologist, she was prescribed the 30 microgram Ethinyl oestradiol containing combined oral contraceptive pill and

discharged.

Discussion

Ovulation is a regular physiological event in women of childbearing age¹, seldom associated with a noteworthy complication. In women on anticoagulants, it can lead to complications ranging from a corpus luteum haematoma² to life threatening massive intraperitoneal haemorrhage²⁻⁵. Occasionally less severe bleeding can occur in women who are not on anticoagulants. Young women on anticoagulants, when advised contraception are often not prescribed the combined oral contraceptive, especially if they are at a risk of thromboembolism⁶. The reason for this cautious approach is the association of Ethinyl oestradiol in the combined pill with inducing a state of hypercoagulability, by increasing the levels of clotting factors II, VII and X and decreasing antithrombin III levels⁴. In such cases an intrauterine contraceptive device or a barrier method is usually recommended. Tubal ligation is considered for older women with higher parity. The risk of foetal abnormalities in women on long term anticoagulants is another reason for advocating this approach⁷⁻⁹. Barrier methods, intrauterine contraceptive devices or tubal ligation prevent pregnancy in these women, but kept them exposed to a monthly recurrent risk of ovulatory or corpus luteum haemorrhage, which can have serious consequences necessitating surgical intervention leading to oophorectomy or castration and can even prove fatal². Women considered to be 'high risk' for the combined oral contraceptive, can alternatively be prescribed gonadotrophin releasing hormone (GnRH) analogues to downregulate the pituitary; simulating menopause and prevent ovulation. However, long term treatment besides being expensive¹⁰, causes metabolic problems and bone demineralization¹¹. The newer preparations of the combined oral contraceptives, containing lower doses (20-30 micrograms) of Ethinyl oestradiol have made it possible to prescribe the pill to women over 35 years, who were previously considered unsuitable for the combined oral contraceptive use¹². Therefore, contraception in women on long term anticoagulants, should not only be effective in preventing pregnancy, but also aim at suppressing ovulation and its potential harmful consequences. In such women, ovulation suppression is worth considering even after tubal ligation².

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