Case Report

Received: November 15, 1988

Accepted: December 20, 1988

Gynecol Obstet Invest 1989;28:51-52

Successful Outcome of Pregnancy Complicated by Giant Myoma and Severe Heparin-Induced Osteopenia

M.		Silber
A.		Ölund

Department of Obstetrics and Gynecology, Karolinska Institutet, Huddinge University Hospital, Huddinge, Sweden

Key Words

Pregnancy
Myoma
Heparin
Osteopenia

Abstract

A case of giant myoma and severe heparin-induced osteopenia during pregnancy is reported. The increased risk of osteopenia with heparin treatment during pregnancy is stressed.

Märta Silber, MD, Huddinge University Hospital, S-141 86 Huddinge (Sweden)

Introduction

Uterine fibroids may constitute a major complication in pregnancy, labor and puerperium. Reported incidence of uterine fibromas during pregnancy varies from 0.3 to 7.2% [1]. They are more frequent in elderly primigravidae, they reduce fertility, and the frequency of spontaneous abortions is increased [1, 2]. During the second and third trimester of pregnancy the growing tumors may induce pressure symptoms. During late pregnancy and delivery myomas may cause fetal malpresentation, uterine inertia and mechanical dystocia depending on the size and location of the tumor [1]. Red degeneration is said to be a common complication during pregnancy [3]. Postpartum hemorrhage is a major complication in the puerperium [1]. It is controversial whether bigger myomas diminish significantly in size after delivery [2,3]. Pregnant women sometimes receive heparin during pregnancy as prophylaxis against thromboembolism. For 20 years it has been known that heparin in nonpregnant subjects for longer periods and exceeding 10,000 units may cause osteopenia [4]. Pregnancy may increase the risk of osteopenia from heparin therapy [4-6].

Case Report

A 39-year-old primigravida presented for an ultrasound examination in the 8th week of pregnancy according to her last menstrual period. She had no significant illness in the past and she had not been to a gynecological examination for at least 10 years.

On examination the size of her uterus corresponded to a pregnancy of 28 weeks. Ultrasound-examination showed a live fetus with a crown-rump-length of 18 mm equivalent to a gestational length of 8 weeks. There was also a giant tumor in the posterior wall of the uterus. The tumor had the appearance of a myoma with an area containing unusually large venous sinuses.

She was followed during her pregnancy with repeated ultrasound examinations. The fetal growth was normal. We could, however, not show any significant increase in the size of the fibroid in the course of pregnancy (fig. 1).

Pressure symptoms began in the 17th week of pregnancy. In the 25th week treatment with subcutaneous heparin 12,500 units twice daily was instituted due to a pronounced thrombocytosis approaching 900 milj/ml. This treatment was continued until delivery and 5 weeks thereafter, making a total treatment period of 17 weeks. An acute cesarean section was performed in the 37th week due to intense abdominal pain (fig. 2). A healthy female infant of 3,600 g was delivered through a low segment, transverse incision. No excessive bleeding was noticed. She developed a postoperative paralytic ileus necessitating total parental nutrition for 11 days. Computerized tomography showed a myoma of 20 cm in diameter with a central necrosis of 15 cm.

52

Silber/Olund

Fig. 1. The patient in the 19th week of pregnancy.

Fig. 2. The uterus after cesarian section was performed.

Since no involution of the myoma occurred, a hysterectomy was performed 26 days postpartum. The tumor measured 25 × 20 × 17 cm and weighed 3.5 kg. When opening the tumor there was a heavy flow of necrotic material. The histopathological diagnosis was leiomyoma.

The low-back pain, which started during the third trimester, was aggravated after the delivery and a radiograph of the spine revealed generalized severe osteoporosis with several wedged vertebral bodies. The administration of heparin was stopped.

The postoperative period was uneventful and the patient was released from the hospital 3 weeks after the hysterectomy. She still had considerable low-back pain necessitating the use of a corset and walking support.

Discussion

Our patient presents typical characteristics and complications of a pregnancy combined with myoma [1, 2]. She is 39 years old and pregnant for the first time pre-ceeded by 3 years of infertility. Pressure symptoms began in the second trimester. Abdominal pain indicating degeneration of the myoma developed at the end of the pregnancy and necessitated cesarean section and later hysterectomy.

It has been known for more than 20 years that heparin may induce osteopenia [7]. This patient was treated with heparin in a dose known to cause osteopenia in nonpreg-nant patients after prolonged treatment. The pronounced osteopenia after a limited treatment period supports earlier reports stating an increased risk during pregnancy [5–7]. Although heparin-induced osteoporosis is rare, it constitutes a major complication.

References

- Parks, J.; Barter, R.H.: The myomatous uterus complicated by pregnancy. *Am. J. Obstet. Gynec.* 63: 260–271 (1952).
- Buckell, E.W.C.: Fibroids in pregnancy. *J. Obstet. Gynaec. Br. Emp.* 54: 70–76 (1947).
- Watson, B.P.: Pregnancy and labor complicated by fibroid tumor. *Am. J. Obstet. Gynec.* 23: 351–360 (1932).
- Wisc., P.H.; Hall A.J.: Heparin-induced osteopenia in pregnancy. *Br. med. J.* 289: 110–III (1980).
- De Swiet, M; Dorrington Ward, P.; Fidler, J., et al.: Prolonged heparin therapy in pregnancy causes bone demineralization. *Br. J. Obstet. Gynaec.* 90: 1129–1134 (1983).
- Griffiths, H.T.; Liu, D.T.Y.: Severe heparin osteoporosis in pregnancy, post-grad. *med. J.* 60: 424–425 (1984).
- Griffith, G.C.; Nicolas, G.; Asher, J.D., et al.: Heparin osteoporosis. *J. Am. med. Ass.* 193: 91–94 (1965).