LDL-cholesterol. These data support the reported observations that a variety of features of the metabolic syndrome are associated with a systemic inflammatory response.[7] Our results also show a positive correlation between CRP concentrations and concentrations of total cholesterol and LDL-cholesterol in diabetic and hyperlipidemic male patients (r=0.35, $p<0.05$) and female patients (r=0.42, $p<0.05$). Although there was an inverse relationship between CRP levels and HDL-cholesterol concentration in the diabetic and hyperlipidemic male patients, but this association was non-significant and could not be obtained in the female patients. However, this result of the present study contrasts the finding of Pirro et al[8] who showed that plasma CRP levels have strong negative correlation with plasma HDL-cholesterol concentration. The discrepancy between our data and the data of Pirro et al[8] is probably because our patients may produce more HDL. The present investigation also showed positive associations between CRP concentrations and body mass index or triacylglycerol concentrations (r=0.40, $p<0.01$) which is in agreement with other published data.[8] The reason for the relationship between CRP and body mass index is possibly that because individuals with obesity are at increased risk for various chronic diseases, several of which are characterized by elevated CRP concentrations. Also, because individuals with diabetes are at increased risk for cardiovascular disease, the higher CRP concentrations could also reflect, in part, the inflammatory component of the atherosclerotic process that is so prevalent among patients with diabetes.

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Risk of morbid obesity with pregnancy

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Obesity is a major health concern and approximately 10% of women are obese prior pregnancy exacerbating the metabolic, hemodynamic and many co-existing problems such as hypertension and diabetes. Mothers with a body mass index (BMI) of ≥31 kg/m^2 have an increased risk of having babies with neural tube defects (NTD) or other major defects.

A 25-year-old gravida 2 para 1+0, Saudi housewife, was admitted at 39 weeks of gestation through the emergency room, complaining of low backache, she was not in labor and was unbooked. She weighed 242 kg with a BMI of 100.8 kg/m^2. All her laboratory investigations were within normal limits apart from random blood sugar, which was border high at 8.6 mmol/L controlled by diet only. Ultrasound scan was carried out and showed a viable single fetus and placental site that was difficult to localize. The patient discharged herself against medical advice. She was requested to be seen in clinic, but failed to review antenatal clinic. One year and 7 months previously, the patient's first pregnancy was ended by lower segment cesarean section (CS) for failure to progress and resulted in a full term, alive baby boy weighing 3.0 kg. She had no medical history but both parents were obese with diabetes mellitus and hypertension. She was not taking any medication and had no history of allergy. The patient was readmitted through the emergency room at 41 weeks of gestation complaining of labor-like pain increasing on the day of admission. Her blood pressure was 140/80 mm Hg, pulse rate was 94 beats per minute and temperature was 36.9^{0}C. On palpitation, the abdomen was huge with gross obesity and difficult to assess fundal level or fetal parts, fetal heart sounds were detected. The previous CS scar was not tender. Vaginal examination revealed a short, central cervix of 2 to 3 cm, which was dilated with

intact membrane and the presenting part very high. Emergency lower segment CS was performed under general anesthesia through transverse suprapubic incision and an alive female fetus weighing 5.2 kg was delivered. Apgar score was 9 and 10 at 3 and 5 minutes and handled by the pediatrician. The placenta was delivered weighing 1.4 kg. The abdomen was closed in layers, 2 corrugated drains were left extra sheath on both ends of the wound for 48 hours. Antibiotics, analgesic and a prophylactic dose of Heparin was given to the patient; the doses were adjusted after counseling the physician. In this case, a lot of difficulties were encountered such as: 1) Evaluation of labor progress and monitoring of her fetus. 2) Patient was operated upon on a trolley as the operating room table cannot accommodate her. 3) Difficulty during administering of anesthesia, preparing intravenous line, intubation and evaluation of the doses. 4) The patient was transferred to the medical intensive care unit (MICU) on the same trolley and remained there until ambulation and then, moved to an MICU bed. 5) Postoperative ambulation required additional staff help. 6) Difficulty with local hygiene especially in the postoperative period. The postoperative period was uneventful. The patient was discharged on the seventh day in good condition, with her infant, on oral hematinics, and advised to visit the outpatient clinic after 6 weeks.

Maternal effects. Obesity is a major health concern. It exacerbates the metabolic, hemodynamic and many co-existing problems such as hypertension, diabetes, hyperlipidemia respiratory disorders, obstructive sleep apnea, heart failure and arthritis.

Inherited thrombophilia, which is associated with an increased risk of venous thrombosis in pregnancy and recurrent fetal loss, is more common and appears to be a multigene disorder among obese women.[1] Leptin is a 16K-Da cytokine secreted in humans by adipose tissues and synthesized in the ovary, transported in the oocyte and made by both fetus and placenta and later by lactating mammary glands.[2] Leptin interferes in body temperature and thyroid function and induces hyperphagia, with secretion increasing after stress. Leptin receptor-gene expression was detected in ovine placenta and adipose tissue of the fetus with overfeeding mother.[3]

Fetal effects. Mothers who had a BMI of ≥31 kg/m^2 had an increased risk of having babies with NTD or other major defects. It has been recommended to advise all obese pregnant mothers to have a screening tests for alpha–fetoprotein. This is helpful especially in cases of spina bifida anencephaly, meningocele, and other defects including defects in great vessels, intestines and ventral wall defects.[4]

Hyperglycemia induced oxidative free-radical molecules which are toxic to embryo; when antioxidants vitamin E and lipoic acid are given to a pregnants rat it prevents these effects and reduced the incidence of fetal malformation. Among women who are simultaneously diabetic, obese and post-term, the incidence of fetal macrosomia can range from 5-15%. A macrosomic baby is prone to have birth trauma, shoulder dystocia and high rate of CS.

Obstetrical practice effects. Most obese patients have some sort of abnormal menstrual cycle pattern and it is subsequently difficult to ensure last menstrual period to determine gestational age. Ultrasound scanning also carried artifacts and lost its valiability to confirm gestational age. Induction of labor for any indication is difficult to determine due to unsure gestational age and labor monitoring.

Size of the fetus, presentation, fetal heart sounds and presence or absence of hydramnios was difficult to evaluate. High CS rate was due to macrosomia, malpresentation, intra-uterine growth retardation, and difficult of monitoring of the fetus during labor and fetal distress. Surgery carries the risk of anesthesia, operative procedure and postoperative follow up. There was risk of infected wound due to large fat layers and bad healing process. Early ambulation and prophylactic heparin are recommended to avoid deep vein thrombosis, pulmonary complications, physiotherapy for chest and extremities. Post-partum hemorrhage should be suspected due to macrosomic fetus, abnormal labor or during CS itself. Post-partum weight loss is essential and not during pregnancy to avoid detrimental effect on the growing fetus.[5]

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