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EDITORIAL

Medical disorders in pregnancy

The management of medical disorders in pregnancy has undergone significant changes in recent years. The pattern of disease has changed with improvements in socio-economic conditions. For example, the incidence of antenatal anaemia has decreased progressively in the past few decades[1,2] and pulmonary tuberculosis, which used to be prevalent, is now seen only rarely. Chronic rheumatic heart disease has also become less common. On the other hand, gestational diabetes has become more common. This may be due partly to the setting up of screening services for gestational diabetes in many hospitals. According to the territory-wide audit report on obstetrics and gynaecology, published by the Hong Kong College of Obstetricians and Gynaecologists, the four most common medical disorders complicating pregnancy are anaemia, diabetes mellitus, cardiac disease, and thyroid disease which occur in 6.3%, 3.0%, 0.7%, and 0.6% of pregnant women, respectively.[3]

In addition, because of the improvements in the medical, obstetric, and anaesthetic management of pregnancy, many women with medical disorders can go through a pregnancy without major problems. The maternal mortality rate in Hong Kong (expressed per 100 000 total births) has dropped from 45 in 1961 to 4 in 1990.[4] The most common cause of maternal mortality is an amniotic fluid embolism.[3] Maternal mortality is now rarely due to medical disorders and there are very few medical indications for termination of pregnancy. There has also been a progressive decrease in the perinatal mortality associated with some medical disorders such as diabetes.[1,2] It is important for all health care professionals involved in the management of pregnant women with medical disorders to be conversant with the latest developments in order to provide the best care for these women. The four articles in this issue are certainly helpful in this respect.[5-8]

There are four important clinical principles in the management of women with medical disorders.[9,10] Firstly, medical disorders are affected by pregnancy, when important physiological changes occur in almost every system in the body. Haemodynamic changes may lead to an additional burden on the cardiovascular system, which may predispose to the occurrence of heart failure in women with cardiac disease or hypertension.[6] The diabetogenic effects of hormonal changes during pregnancy may lead to the development of gestational diabetes[5] and they also make the control of pre-existing diabetes more difficult. Secondly, medical disorders may affect the pregnancy. Diabetes may lead to foetal macrosomia[5] while chronic hypertension or renal disease can result in foetal growth retardation. Thirdly, physiological changes during pregnancy make the diagnosis of a medical disorder more difficult. Sometimes abnormal symptoms due to medical disorders may be attributed to the pregnancy, leading to a delay in diagnosis, while physiological symptoms and signs may lead to overdiagnosis of some medical disorders. Finally, the treatment of medical disorders during pregnancy may be different from their treatment in the non-pregnant state. In a pregnant woman, there are two patients—the mother and the foetus. The physician and the obstetrician have to balance the risks and benefits to both the mother and foetus when deciding on treatment.

Proper counselling and preparation before a woman becomes pregnant is important in ensuring the best outcome for the pregnancy. The risk of a medical disorder and/or medical treatment to both the mother and foetus should be explained to a woman before she becomes pregnant so that an informed decision as to whether or not to get pregnant can be made. Although rare nowadays, some medical disorders are associated with a high mortality risk (over 25%).[6] These women should be advised against getting pregnant. It should be emphasised, however, that the final decision should be made by the woman herself after proper counselling. They should also be given proper advice about contraception or sterilisation if they decide not to get pregnant. This will reduce the chance of an unplanned pregnancy requiring termination. Some contraceptive methods may not be entirely appropriate for women with certain medical disorders and careful consideration should be given to the efficacy and potential side effects, and to the medical condition of the woman before the most suitable method is chosen. This may require considerable skill and experience.

Once the woman decides to embark on a pregnancy, she should be properly prepared. Medication with possible adverse effects on the foetus should be changed, if possible, to another medication known to be safe in pregnancy. Since a woman is usually pregnant for more than two weeks before the pregnancy can be diagnosed, it is better to change the drug (especially if it is known to be teratogenic) before the woman becomes pregnant. The medical condition should be well controlled before attempting pregnancy. This may improve the foetal outcome. In women with pre-existing diabetes, there is suggestive evidence that good control of the diabetes will reduce the chance of foetal anomalies.[11] Proper preparation is also important to improve the maternal outcome. For example, elective cardiac surgery may be necessary before pregnancy so that the condition of the woman can be improved. Again, appropriate advice on contraception is necessary while the woman is waiting for control of the medical condition. As prepregnancy counselling requires the expertise of both the obstetrician and the physician, clinics with the participation of both parties are ideal for the counselling and treatment of these women.

After the woman has conceived, the continued cooperation of the obstetricians and physicians is necessary. In addition, the involvement of other health care professionals may be required. Anaesthesiologists should be consulted early for provision of the appropriate method of pain control and the preparation for anaesthesia for caesarean section either as an elective procedure or as an emergency during labour. It is encouraging that anaesthesiologists in some hospitals (e.g. Tsan Yuk Hospital) have started to run assessment clinics for antenatal patients so that the patients can be prepared for the management of labour and delivery. Surgeons may also need to be involved. In women with medical conditions where the foetus may be affected, the neonatologist should be consulted so that the baby can be given proper treatment immediately after delivery. Physiotherapists, nursing staff, and other allied health professionals can often contribute to the management of these women.

After delivery, the need for contraception should again be discussed and the appropriate method advised. It cannot be emphasised too much that the best management of a woman's medical disorder requires a multidisciplinary approach with good communication among all the staff involved. In the management of more common medical disorders such as diabetes or cardiac disease, a combined clinic with the participation of both physicians and obstetricians is ideal. It may sometimes be necessary to hold a case conference with all the health care professionals involved in the treatment of the patient. It is only with the concerted effort of the specialties involved that we can ensure an optimal outcome for pregnant women with medical disorders.

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References

1. Department of Obstetrics and Gynaecology, The University of Hong Kong. Clinical Report of Tsan Yuk Hospital. Hong Kong, 1966.
2. Department of Obstetrics and Gynaecology, The University of Hong Kong. Clinical Report of Tsan Yuk Hospital and Queen Mary Hospital. Hong Kong, 1995.
3. Hong Kong College of Obstetricians and Gynaecologists. Territory-wide audit in obstetrics and gynaecology. Hong Kong, 1994.
4. Duthie SJ, Lee CP, Ma HK. Maternal mortality in Hong Kong, 1986-1990. Br J Obstet Gynaecol 1994;101:906-7.
5. Tan K. Impaired glucose tolerance in pregnancy. HKMJ 1997;3:381-7.
6. Li CY, Sanderson JE. Cardiac disease in pregnancy. HKMJ 1997;3:391-9.
7. Kung A. Thyroid disease in pregnancy. HKMJ 1997;3: 388-90.
8. To WK, Cheung RT. Neurological disorders in pregnancy. HKMJ 1997;3:400-8.
9. Gleicher N, Elkayam U. Principles of internal medicine in pregnancy. In: Gleicher N, editor. Principles of medical therapy in pregnancy. New York: Plenum Medical Book Company, 1985:3-7.
10. Gleicher N, Elkayam U. Fertility control in the female patient with medical disease. In: Gleicher N, editor. Principles of medical therapy in pregnancy. New York: Plenum Medical Book Company, 1985:7-19.
11. Fuhrmann K, Reihler H, Semmler K, Fischer F, Fischer M, Glockner E. Prevention of congenital malformations in infants of insulin-dependent diabetic mothers. Diabetes Care 1983; 6:219-23.