Aneurin Bevan Health Board

Recurrent Miscarriage

N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.

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1 Executive Summary

This document is a clinical guideline designed to support safe and effective practice

1.1 Scope of guideline

This guideline applies to all clinicians working within gynaecology services

1.2 Essential Implementation Criteria

Auditable standards are stated where appropriate

2 Aims

To provide support for clinical decision making

3 Responsibilities

The Gynaecology Management team

4 Training

Staff are expected to access appropriate training where provided. Training needs will be identified through appraisal and clinical supervision.

5 Monitoring and Effectiveness

Local service Improvement Plan will guide monitoring and effectiveness.

6 Further Information

Definition: Recurrent miscarriage (RM) is defined as loss of three or more consecutive pregnancies although most authorities would accept two consecutive fetal losses.

Incidence

Spontaneous miscarriage-15%

Recurrent Miscarriage-3 or more consecutive miscarriage-1%

Causes of Recurrent miscarriage

1. Unknown or Idiopathic

In 50% of cases of recurrent miscarriage no cause is found [1] [2] [3].

2. Genetic and Chromosomal

In less than 3% of cases, either the woman or her partner may possess abnormal chromosomes, which they happen to repeatedly pass on to the fetus.

3. Abnormalities of the uterus (womb) or cervix (neck of the womb)

Abnormalities in the shape of the uterus occur in probably less than 5% of women with recurrent miscarriages.

4. Infection

The continuing emergence of Bacterial Vaginosis as a cause of RM is widely accepted[7]. Other rare infections involved include Rubella (German Measles), Toxoplasmosis, Listeria and Parvovirus.

5. Hormonal Imbalance

Imbalance of hormones such as progesterone and human chorionic gonadotrophin (hCG) has been suggested as a cause of miscarriage.

6. Thrombophilia or blood clotting abnormalities

Antiphospholipid syndrome (APS)

6 Primary APS

ApL Abs, vascular thrombosis

Adverse pregnancy outcome

1. 3 or more consecutive miscarriage before 10 weeks
2. One or more morphologically normal fetal death- after 10 weeks pregnancy
3. One or more preterm births before 34 weeks gestation due to severe preeclampsia, eclampsia or placental insufficiency

7 Secondary APS where APS exists with SLE

ApL Abs-15%, live birth rate 10% with no treatment[9]

Give heparin and aspirin, Live birth rate-70%

Only aspirin-live birth rate is 40%

Pregnancy problems- miscarriage, pre-eclampsia, IUGR, preterm labour.

Investigations

1. Karyotyping of both partners
2. Cytogenetic analysis of products of conception
3. Perform pelvic ultrasound to rule out uterine anomalies.
4. Screen for Antiphospholipid syndrome

   Perform-APS test- lupus anticoagulant or anticardiolipin antibodies IgG/IgM-6 weeks apart

   Lupus anticoagulant by bilateral Russell's viper venom test

   Anticardiolipin by ELISA test

5. Swab for bacterial vaginosis in early pregnancy in high-risk women with H/O 2nd trimester miscarriage/preterm labour.
6. Thrombophilia screen for

   Activated protein C resistance

   Deficiency of protein C and S

   Anti thrombin III deficiency

   Factor V Leiden gene mutation

   Prothrombin gene mutation

   Hyper homocystenaemia

   B2GP1 antibodies

Management:

Preliminary work up

The mainstay of management of these patients is based upon emotional support supplemented by ultrasound scan in early pregnancy, which gives "success rates" of between 70-80%[4, 5]. Even at or above the age of forty, there is still a 50% chance of a

successful pregnancy [6], as the two main determining factors are maternal age and number of previous consecutive losses.

- Patients with recurrent miscarriage should be seen in the GOPD, all investigations should be arranged, a proper plan of further follow-up and management being outlined.
- It is important for both partners to be aware of what is going to happen, encourage partner's participation.
- Care should be streamlined, and tests should not be merely done to reassure the patient that something is being done.
- Reassure the couple that all known factors for RM will be explored. Give explanation of all the tests before taking blood samples.
- Discus the treatments that are available (it prepares the couple for their further consultation).
- Discuss lifestyle and about preconception care.
- Encourage them to talk about their fears and anxieties.
- Arrange for a six-week follow-up appointment for the couple to see a specialist.
- Advise to contact their GP for referral to EPAU or her named consultant if they should achieve a pregnancy and arrange an ultrasound scan at six weeks gestation and thereafter fortnightly for maternal assurance until seen in the antenatal booking clinic

7.1 Treatment

- If a chromosomal abnormality is found in a parent, referral to a clinical geneticist may be necessary.
  Counselling regarding Egg donation, donor sperm and adoption is needed.
- Treatment of bacterial vaginosis decreases the risk of miscarriage and preterm labour

- Cervical incompetence- perform cervical cerclage suture (Mc Donald's suture)
- Antiphospholipid syndrome-
  Aspirin 75 – 100 mgm a day and Low Molecular Heparin

(Clexane) prophylactic dose or unfractioned heparin is started as soon as pregnancy is diagnosed.

Both are continued until delivery and thereafter postnatally for 6 weeks if obese or Caesarean section or previous thrombosis history

- Abnormal thrombophilia screen- Start on prophylactic dose of LMWH as per the severity
- hCG is recommended for women with oligomenorrhoea (periods more than 35 days apart) from the time of positive serum hCG until 12 weeks gestation.

General Advice

- Smoking and alcohol intake are thought to be associated with a higher rate of miscarriage.
- There is no association between the use of computers and miscarriage
- The Department of Health suggests that all women planning a pregnancy should have 400µgms of folic acid before pregnancy until approximately 12 weeks gestation.
- It is advisable to avoid close contact with sheep and horses during lambing.
- Avoid contact with cat's litter

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