MEDICAL MANAGEMENT OF ECTOPIC PREGNANCY

NOTE:

- Ruptured (or suspected ruptured) ectopic pregnancy must be stabilised and operated at the nearest hospital immediately (urgent resuscitation and surgery).
- Unruptured ectopic pregnancies in stable women can be referred to Tygerberg Hospital if they qualify for medical management.
- Medical management can be offered at district hospital level if the skill and infrastructure is available. In this case, after two doses of methotrexate, if the decline in ß-HCG is still <15% on day 14, refer for specialist care (see later).
- Stable women with unruptured ectopic pregnancy that does not qualify for medical management can be referred to Tygerberg for laparoscopic management if the skill is not available at the base hospital, especially in women whose family is not competed yet or where there is a known history of infertility (check availability with registrar on call). Otherwise do laparotomy at district hospital.

GENERAL MEASURES (stable mothers with presumed ectopic pregnancy)

- Ensure there is no viable intra-uterine pregnancy:
    - If the initial ß-HCG level is <1500 IU/L and transvaginal ultrasound cannot definitively identify an intrauterine or extrauterine gestation, serial ß-HCG measurements are necessary to document either a growing, potentially viable, or a nonviable pregnancy.
    - Repeat the ß-HCG in 48 hours.
    - If the level has dropped, conservative management may be appropriate.
    - The minimum rise in ß-HCG for a potentially viable pregnancy in women who present with symptoms of pain and/or vaginal bleeding is 53% every 2 days.
    - If the ß-HCG level has increased by more than 50% or is now >1500 IU/L, a repeat scan should be done to exclude an intra-uterine pregnancy before methotrexate is administered.

MEDICAL MANAGEMENT

Methotrexate should be the first-line management for women who are able to return for follow-up and who have the following characteristics:

- Haemodynamic stability and no significant pain
- An unruptured ectopic pregnancy with a mass smaller than 40 mm with no visible heartbeat
- Low serum ß-HCG, ideally less than 1500 IU/L but can be up to 5000 IU/L
- Certainty that there is no intrauterine pregnancy
- Willingness to attend for follow-up
- Normal baseline liver and renal function test results
- No contra-indication to methotrexate

Contra-indications for the use of methotrexate:

- Evidence of immunodeficiency
- Moderate to severe anemia, leukopenia, or thrombocytopenia
- Sensitivity to methotrexate
- Active pulmonary disease
- Active peptic ulcer disease
- Clinically important hepatic dysfunction
- Clinically important renal dysfunction
- Breastfeeding

Protocol:

Day 1: Do urea, creatinine, AST, full blood count.

Administer Methotrexate intramuscular 50 mg/m^2 of body surface area (BSA).

BSA may be calculated based upon height and weight on the day of treatment using the formula BSA = square root of ([height in cm X weight in kg]/3600)

Example: Height 180 cm, weight 80kg

$$BSA = \sqrt{\frac{180 \times 80}{3600}} = \sqrt{\frac{14\,400}{3600}} = \sqrt{4} = 2$$

Day 4: Repeat b-hCG.

Day 7: Repeat b-hCG.

If the decrease from day 4 to day 7 is ≥15%:

» Continue with weekly b-hCG until undetectable.

If decrease <15% and patient still fulfils the criteria for medical management:

• Give another dose of Methotrexate, IM, 50mg/m^2 BSA

Repeat b-hCG on day 14.

Note: Folinic acid (Leucovorin) rescue is not needed for the single dose protocol described above, even if more than one dose of methotrexate is given.

REFERRAL

After two doses of methotrexate, if the decline in b-hCG is still <15% on day 14, refer to Tygerberg for specialist care.

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Signed: GS Gebhardt

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