TYGERBERG HOSPITAL
Department of Obstetrics and Gynaecology

PROTOCOL FOR REQUESTING PLACENTA HISTOLOGY 2020

Purpose of Placental Histology:

It is a valuable diagnostic aid in understanding the cause of a baby's demise or poor condition at birth. This information helps to:

- bring closure to grieving parents
- helps in the pre-conceptual counselling and planning for future pregnancies
- may be of great benefit in any medico-legal proceedings

Indications for Placental Histology Requests: (for both live-born and stillborn babies):

1. **Unexplained stillbirth** ≥24w0d or ≥ 500g. (Unexplained here infers that the cause of death cannot confidently be attributed based on the clinical context only).
2. Signs of **asphyxia** in a viable baby. This group consists of:
   - All neonates who required resuscitation (unless clearly due to abruptio placentae or cord prolapse)
   - All term babies with suspected hypoxic ischaemic encephalopathy (whether admitted for therapeutic hypothermia in NICU or not)
   - All intrapartum deaths (unless abruptio or cord prolapse)
3. **Recurrent (≥ 2) second trimester losses**
4. **Idiopathic preterm labour** if gestational age < 34 weeks or birth weight < 2000g (if unsure GA).
5. Suspected clinical **chorio-amnionitis.**
6. Severe **intrauterine growth restriction** not related to pre-eclampsia.
7. **Multiple pregnancies:**
   - All applicable indications that would be relevant in singleton pregnancies.
   - All multiple pregnancies with **uncertain chorionicity** AND who had growth discordance or perinatal morbidity/mortality.

   NB: Please mark the cord of one of the placentas with a plastic cord clamp and document on the request form whether the clamped placenta belongs to baby A or B.
8. **Congenital abnormalities WITHOUT prior diagnosis.** [Unless otherwise requested by the clinical genetics or fetal medicine team (see ultrasound report)]
9. Severe pre-eclampsia only if requested by the **Special Care Unit.**
10. Mothers with **active Tuberculosis (TB),** currently on TB treatment or if there is a high clinical suspicion of TB in the mother.
11. All women with a **previous history of documented chronic histiocytic intervillositis** regardless of the outcome in index pregnancy.

SOP for Placental Histology Requests:

APPROPRIATE BASIC INFORMATION to include on all Pathology Requests:

1. Gestational Age
2. Baby born alive / fresh stillborn / macerated stillborn
3. Syphilis result
4. Whether Labour was induced – Yes/No
5. Indication for histology request
6. Any specific clinical concern / question / important findings / co-morbidities

PROCESS TO FOLLOW after identifying a case where placenta histology is indicated:

1. *Document* in the maternity case record, the intention to send the placenta for histology.
2. Obtain *verbal consent* from the patient for histology and exclude religious objection to this (e.g., patients of Muslim faith usually request to bury the placenta). If this is the case, consent may be obtained to do a BIOPSY of the placenta. Take a biopsy of the most abnormal-looking part of the maternal side of the placenta (use surgical blade and include fetal aspect and membranes). Also include a piece of the cord. These should be sent in a small container of formalin and labelled as placental biopsy. The patient should be counselled that this process is significantly inferior to conventional assessment.
3. *Inform the attending midwife* (even before delivery) that the placenta is for histology.
4. Put the appropriately completed *histology request form in the AGREED-upon location*. This is likely to be the plastic pocket on the refrigerator door in the placenta sluice room. However, kindly make sure that you are up to date with the current practice as preferred by the labour ward nursing team. The Nursing management kindly takes responsibility for the bucketing of the placenta in formalin and having it sent to the laboratory.

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Signed 7 October 2020

GS Gebhardt