

Placenta - Singleton

(7.6 Placenta); Created December 25th, 2018 by Jeremy Deisch, MD; Modified October 30, 2023 by JKD

SAMPLE DICTATION

Cerner Template: **GPLACENTA** (singleton placenta synoptic gross template)

— (Labeled: __, __) Received fresh and subsequently fixed in formalin is a singleton placenta with membranes and umbilical cord.

Membranes

Insertion: __
Appearance: __
Point of rupture: __ cm from the site of insertion
Other: None

Cord

Length: __ cm
Diameter: __ cm
Insertion: __
Coils: __ per 10 cm (__-handed)
Vessels: __
Other: None

Disc

Shape: __
Size: __ x __ x __ cm
Weight: __ g
Fetal surface: __
Maternal surface: __
Parenchyma: __
Other: None

Specimen handling: Representative sections, __ caps

BLOCK KEY:

—

SUGGESTED SAMPLING

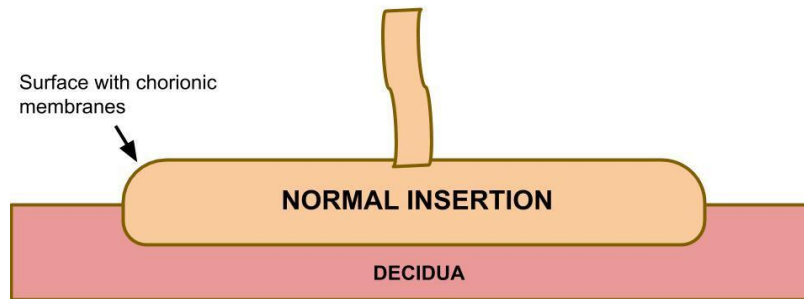
- 1: Two sections of cord (one mid cord, one close to disc insertion), one membrane roll (membrane roll should be from strip that includes both point of rupture and peripheral disc insertion – see following diagram)
- 2-4: Full thickness parenchyma (if too thick, trim center and retain fetal and maternal aspects); one full thickness section adjacent to cord insertion
- >4: Additional focal lesions within parenchyma

ADDITIONAL CONSIDERATIONS

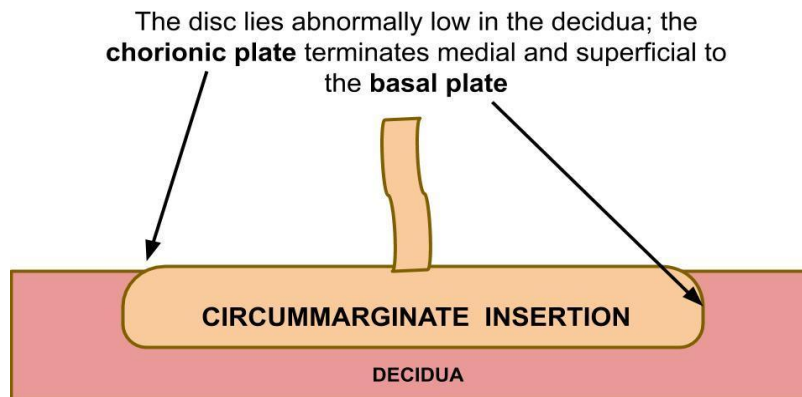
- Cord insertion: Marginal < 1 cm, peripheral < 3 cm from nearest disc edge
- Cord coiling: < 1 coil per 10 cm = hypocoiling, > 3 coils per 10 cm = hypercoiling
- It is critical to give the overall percentage of the placental disc abnormalities when present; an infarct that results in < 5% of the placental volume will have no clinical significance, whereas an infarct involving over half of the disc would be expected to result in significant uteroplacental insufficiency.
- Take care to trim the placental parenchyma sections to a relatively small size. It is better to have a smaller tissue fragment that is evaluable than a larger portion that is under-processed and unevaluable.
- Peripheral sections of placental parenchyma are very low yield, with accentuated degenerative changes (interstitial fibrin deposition, calcifications) that make interpretation difficult. Unless there is a very good reason, avoid sampling the periphery of the disc.

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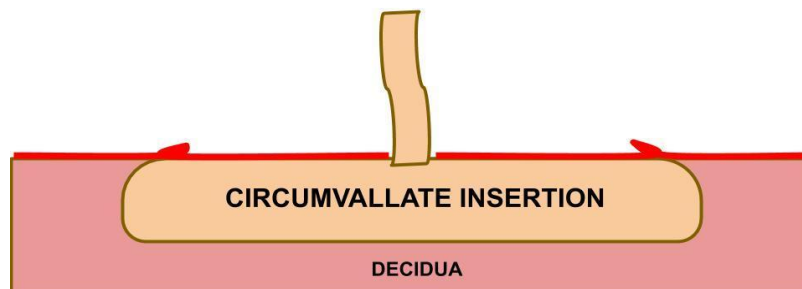
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Note the **basal plate** (peripheral edge of placental disc) terminates at the same point as the **chorionic plate** (the chorionic membrane covering the placental disc)



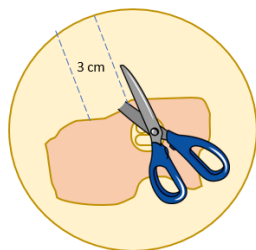
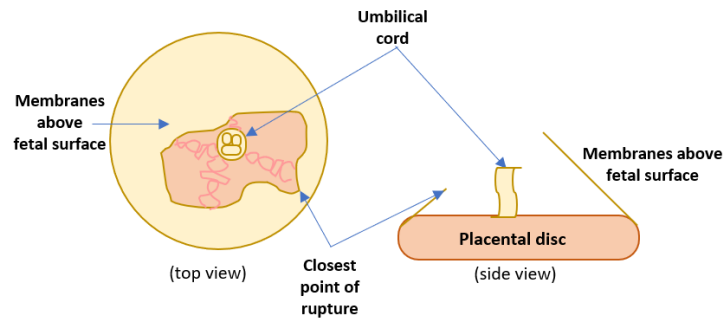
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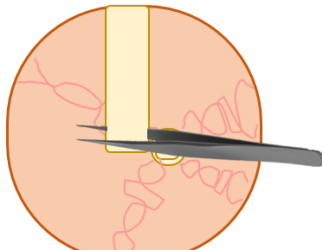
Similar to circummarginate insertion, basal plate terminates lateral to chorionic plate insertion. Membranes "double up" at termination of chorionic plate, leaving a thick white ring at periphery

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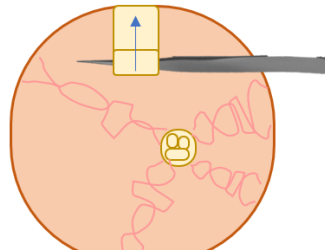
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Step 1 –
Cut 3 cm strip of membrane,
be sure to maintain
attachment at edge of disc.



Step 2 –
Spray membrane strip with acetic
acid. Then, grip the rupture site
with serrated forceps.

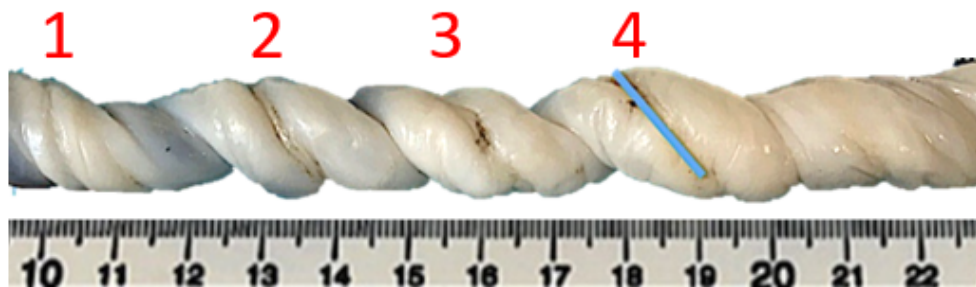


Step 3 –
Squeeze forceps, then twist
toward membrane insertion site.
Cut from disc, leaving rolled
membrane around forceps.



Step 4 –
Pull membrane roll off forceps with
fingernails or pins. Then cut 0.3 cm thick
sections from the roll to submit to histology.

**To assess number of umbilical cord coils per 10 cm,
lay cord on cutting board:**



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**To assess umbilical cord chirality,
first hold cord vertically:**



Left-handed coil
(angle up to left)



Right-handed coil
(angle up to right)