

# Incidental Finding Of Meconium Stained Amniotic Fluid In Less Than 39 Weeks Of Gestation – Reconsideration Of Edd And Planning Of Elective Repeat Cesarean Section?

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## ABSTRACT

### OBJECTIVE:

To correlate incidental finding of meconium stained amniotic fluid(MSAF) in elective repeat cesarean section less than 39 weeks and determining the maturity of fetus and thereby deciding the timing at which elective repeat cesarean can be performed

### METHOD:

It is a case study series conducted in department of obstetrics and gynaecology in Apollo KH hospital from december 2021 to December 2023 on women who underwent elective repeat cesarean section less than 39 weeks for various personal reasons and was incidentally found to have meconium stained liquor.

### RESULTS:

Six cases with incidental finding of meconium stained liquor in repeat cesarean section were studied and none of the babies had any adverse neonatal outcomes.

### CONCLUSION:

Incidental finding of MSAF in less than 39 weeks shows fetal maturity which might lead us to reconsider the gestational age at which elective repeat cesarean can be performed and to whether to reconsider the calculation of estimated delivery date to 39 weeks. But this requires further research to draw a conclusion.

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## I. INTRODUCTION:

Three theories have been suggested to explain fetal passage of meconium

1)Pathological explanation proposes that fetuses pass meconium in response to hypoxia and that meconium therefore signals fetal compromise

2)The physiological explanation is that in utero passage of meconium represents normal gastrointestinal tract maturation under neural control.

3) Final theory posits that meconium passage follows vagal stimulation from common but transient umbilical cord entrapment with resultant increased bowel peristalsis

Thus, meconium release may represent physiological maturation of gastrointestinal tract of fetus.

RCOG guidelines recommends elective repeat cesarean after 39 weeks of gestation to decrease the risk of neonatal morbidity.

## II. METHODS:

It is a retrospective case study series conducted in department of obstetrics and gynaecology in Apollo KH hospital from December 2021 to December 2023 on women with singleton Pregnancies who underwent elective repeat cesarean section and was incidentally found to have meconium stained amniotic fluid(MSAF)

All baseline investigations including blood group and rhesus factor, complete blood count, urine routine, viral markers and blood sugar levels were done. Fetal outcome was assessed based on APGAR at 1 min and 5 minutes and NICU admission.

### CASE STUDY 1:

33 year women with gravida 2, para 1, living 1 at 38 weeks gestation with previous cesarean section presented to our hospital for elective repeat cesarean section. She does not suffer from any comorbidities or any allergies.Her vital signs were stable and all her basic investigations were within normal range.She underwent

elective repeat cesarean and was found to have plenty of grade 1 meconium stained liquor during cesarean section. No neonatal complications were observed after birth.

**CASE STUDY 2:**

A 31 year women with gravida 2, para 1, living 1 with 38+5 weeks gestation with previous cesarean came for elective repeat cesarean section. During cesarean, grade 2 meconium stained liquor was found. No neonatal complications or NICU admission was observed.

**CASE STUDY 3:**

A 26 year women with gravida 2, para 1, living 1 with previous cesarean section came for elective repeat cesarean. All her investigations and vitals were within normal limits. She underwent repeat cesarean section at 38+3 weeks of gestation and was found to have grade 2 meconium stained liquor. One loose loop of cord around the neck of the fetus was also observed. There was no neonatal compromise nor NICU admission observed.

**CASE STUDY 4:**

A 33 year women with gravida 3, para 2, living 2 with previous two cesarean section presented to our hospital at 37+2 weeks of gestation for elective repeat cesarean section. She underwent elective repeat cesarean and was found to have grade 1 meconium stained liquor. No neonatal distress was observed. No NICU admission.

**CASE STUDY 5:**

A 28 year women with gravida 2, para 1, living 1 with previous cesarean section came for elective repeat cesarean. All her investigations and vitals were within normal limits. She underwent repeat cesarean section at 38+3 weeks of gestation and was found to have grade 1 meconium stained liquor. One loose loop of cord around the neck of the fetus was also observed. There was no neonatal compromise nor NICU admission observed.

**CASE STUDY 6:**

A 23 year women with gravida 2, para 1, living 1 with 37+6 weeks gestation with previous cesarean presented to our hospital for repeat cesarean section. Her vitals and basic investigations were within normal limits. She underwent repeat cesarean and was found to have grade 2 meconium stained liquor. No adverse neonatal outcomes were observed.

**III. RESULTS:**

Out of six cases with incidental finding of meconium stained liquor in repeat cesarean section, none of the neonates had respiratory distress nor any complications. No NICU admissions were observed.

**IV. CONCLUSION:**

The incidental finding of MSAF during elective repeat cesarean is not associated with increased risks of adverse neonatal outcomes. The passage of meconium in the amniotic fluid can be a sign of gestational maturation. Incidental finding of MSAF in less than 39 weeks shows fetal maturity which might lead us to reconsider the gestational age at which elective repeat cesarean can be performed and also the calculation of estimated delivery date to 39 weeks. Reason behind MSAF in less than 39 weeks in patients with no maternal or fetal risk factor remains unclear and needs further research.

**REFERENCES:**

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