

Novel Role of Amniocentesis-Prenatal Utility

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Abstract

Amniocentesis is an outpatient procedure with an aim to obtain the amniotic fluid for various purposes most commonly for prenatal chromosomal diagnosis and infection screen, lung maturity and Rh incompatibility. It has been under constant evolution since 1959 by Experts. Procedure advanced from blind procedure to ultrasound guided. I have used it diligently in various obstetrics cases which saved time and helped in compiling to a planned care. If used it will definitely help obstetricians achieve very motive safe mother and child.

Objective: It's a compliment to the clinician in a critical situation with the addition to other modalities including Ultrasound.

Keywords: Amniocentesis; Chorionic villus sampling; Rh incompatibility

Introduction

Amniocentesis is performed to obtain amniotic fluid for various prenatal diagnostic reasons like for chromosomal reasons [1] infection screen [2].

Amniocentesis procedure must be utilized in various obstetric dilemmas by the clinician who can perform ultrasound scans. The technique is performed under all aseptic precautions, none were given local anesthesia a spinal needle gauze 21/22 were in routine practice which was entered through the maternal abdominal wall then via uterine to amniotic sac avoiding blood vessels and cord under Doppler. We use 5/10/20 ml syringe to aspirate depending on the purpose of performing.

Case Series

We have performed Amniocentesis since 2011 in various obstetrics cases and the very first case was in a young 34 weeks pregnant with the previous C section and severe abdominal pain and tightening of the uterus without bleeding. All started suddenly, the patient didn't have any risk other than iron deficiency moderate anemia in the antenatal period. On examination the pulse, blood pressure was within normal limits and CTG attempted was difficult to connect as the patient was completely rolling in pain. The patient had quick (bedside) amniocentesis performed under ultrasound Doppler guidance which confirmed concealed abruption blood stained liquor seen. Immediately shifted to Operation Theater with a dose of betamethasone and surgical profile and anesthetic review in the preoperative area in view of the emergency. Findings were 800 ml-1L of concealed abruption was noticed and liquor was bloodstained scar was intact and fetus had good agars. The patient received 3 units of blood later iron infusions. Mother and child fine.

How amniocentesis helped is by saving time and ruled out all differentials which came as domestic violence as vitals were normal,

later thought maybe severe constipation or pancreatitis and as she was preterm wanted to prolong if any reversible causes, as it wasn't a revealed abruption, but due to amniocentesis it was clear and could communicate well with relatives pediatricians and anesthetist and blood bank the need for urgency. These practices didn't put the patient at any risk.

The second case was a young woman with known polyhydramnios came to ER with complaints of severe breathlessness and tense abdomen, the vital were oxygen saturation as 86% on air was very uncomfortable and ECG and 2D echo were normal except sinus tachycardia, and then planned to have quick pre-anesthetic check and in theatre planned for amniocentesis to drain and CTG was suspicious, given the fact she was 30 weeks only betamethasone was given an amniocentesis is done to drain the amniotic fluid continuously (3 hours slowly) at the left lateral position with continuous CTG monitor. Due to CTG changes planned for the emergency C section. This procedure helped for easy delivery as the fetus was a transverse lie and patient felt better so she could be given position for spinal anesthesia.

Other cases are the induction of labor were in once the induction is failed if the patient agrees for repeat process of induction without any medical reasons to expedite and if the patient is not ARM able and if rest can be given then I perform the amniocentesis to see liquor color and then take further decisions. In a few cases were in CTG was suspicious looking and to help whether to give a trial of Induction or not especially in cases of borderline oligohydramnios and Small for dates and Know Intrauterine growth restriction.

In these practices never encountered any difficulty as easy accessibility and no trauma or infection noted (all had the viral screen and blood group notified)

Conclusion

Novel usage of amniocentesis can be considered after few local protocol approvals.

Conflicts of Interest

None

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