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RESEARCH ARTICLE

SPONTANEOUSREMOVALOFPLACENTAORMANUALREMOVALOFPLACENTA:WHICHISMOREBENEFICIALTOTHEPATIENTSPOST-OPERATIVELY:

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Abstract

Aim: Toassesswhichmethodofplacentaremovalhasmorebeneficialeffects,spontaneousremovalormanualremovalandadheretopracticesthatbenefitthepatient.
Design:RETROSPECTIVECOHORTSTUDY
Methodology:
SampleSize:100
Inclusioncriteria:
PostnatalpatientsProcedure: Thisstudyisaretrospectivecohortstudy.ThestudypopulationwillbepostnatalpatientswhodeliveredinchettinadHospital. After getting informed consent, the procedure will be explained thoroughly to the participantsand only the participants who are willing to take part in the study will be selected. Theparticipantswereobservedonanoutpatientbasisandthosewhowereadmittedinthepostnatalward. Parturients undergoing cesarean delivery were prospectively randomized to have theplacenta removed manually or spontaneously. Patients were excluded from participation if theyhad received intrapartum prophylactic antibiotics or had been determined to havechorioamnionitis. After delivery of the infant, women in the manual group had the placentaextracted by the primary surgeon, whereas women in the spontaneous group had the placentadelivered by gentle traction on the umbilical cord. All study subjects received perioperativeprophylactic antibiotics. Their pre operative and post operative reports were analyzed forHaemoglobin counts, their course of antibiotics and days of antibiotics taken post operativelywastakenintoconsideration,symptomssuchasDizziness,palpitations,headacheTirednessorweakness were asked to the patients and their complete blood counts report, urine routinereportswerecollectedtobecomparedpreandpostoperatively. Thisstudyisainvasivestudy.
StudyDuration:2months(4/10/2023-04/12/2023)Results:
A total of 100 women were enrolled in the investigation, with 48 assigned to the manual removalgroup and 52 allocated to have spontaneous removal. There were no statistically significantdifferencesinmeangestationalage,frequencyordurationofruptured membranes,frequencyordurationoflabor,ormeannumberofvaginalexaminationsbetweenthetwostudygroups. Postoperative infections occurred in 5 of 52 women in the spontaneous delivery groupcomparedwith12of48womeninwhichtheplacentawasmanuallyextra

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cted.Subsetanalysisof patients delivered with ruptured membranes similarly demonstrated a statistically significantreduction in the incidence of postoperative infections with spontaneous placental removalcompared with manual extraction There was a similar trend toward a reduction in post deliveryinfectionsassociatedwithspontaneousplacentalremovalinwomen withintactmembranes.

Conclusion: Spontaneous delivery of the placenta after cesarean delivery is associated with a decrease intheincidenceofpostcesareaninfectionsandanemicsymptomscomparedto manualremovaloftheplacenta.

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Introduction:-

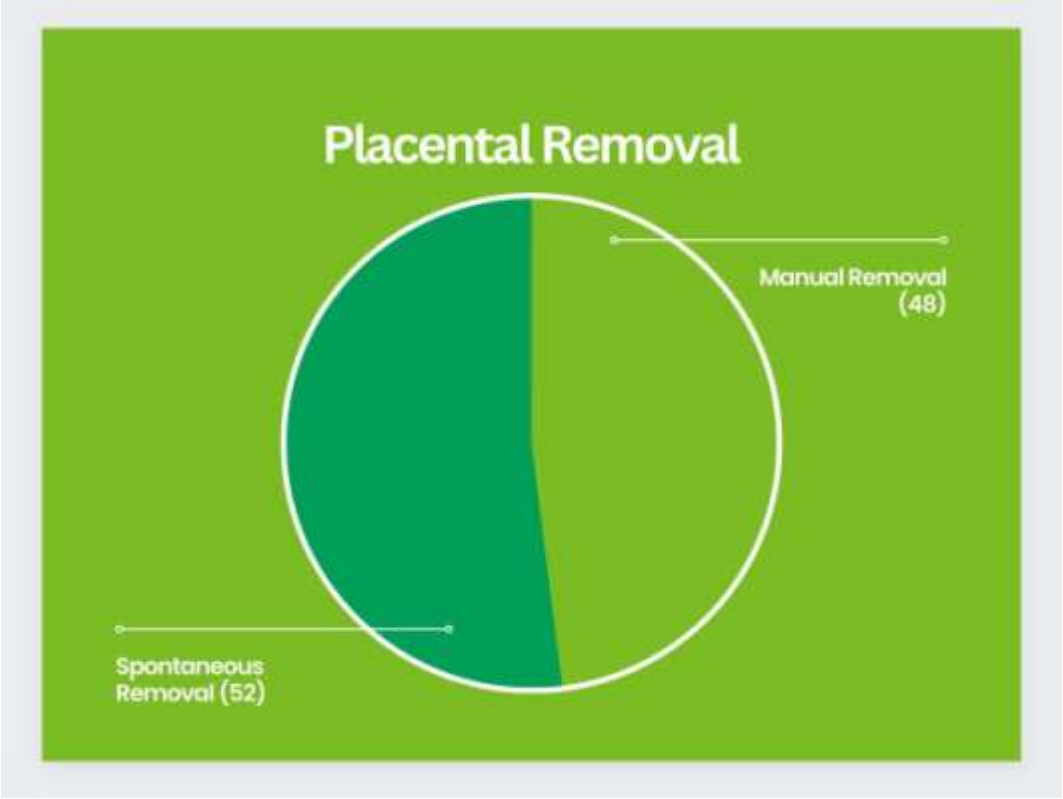
Cesarean section (CS) is a life-saving surgery when certain complications occur duringpregnancy and childbirth. CS rates have consistently increased in both developing anddeveloped countries in the recent few decades.Based on the recent data from 150 countries,currently, CS accounts for 18.6% of all births, and for the least and most developed regionsranged from 6% to 27.2%, respectively. Despite advances in modern surgical equipment andpostoperative care, related risks such as hemorrhage, iatrogenic tumors, thromboembolicevents, and infection are still potential threats. Patients with malignant placenta may haveinfluence on the blood loss and clinical outcomes of cesarean section. Additional therapeuticmethods can reduce blood loss during cesarean delivery and preserve fertility in perniciousplacenta previa patients who are complicated with placenta accrete. Among them, hemorrhageis one of the most common complications of delivery and is considered to be the main cause ofpreventable maternal mortality in the world. Meanwhile, compared with vaginal delivery,cesarean delivery has a higher risk of hemorrhage. Estimating the amount of blood loss duringCS is critical to reducing surgically induced morbidity.However, due to its extremely hardaccuracy and poorly reproducible, it is usually underestimated.8 As complications of CS maycause life-threatening bleeding, appropriate procedures should be taken to reduceintraoperative and postoperative blood loss.The type of uterine incision and the method ofplacental removing are important factors in determining the outcomes during CS, such as theamountofbloodloss.Comparedwithlowerverticalincisionorclassicincision,lowertransverseuterine incision has less operative blood loss. Patients with lower vertical and classic incisioncouldincreaseoperativebloodloss.

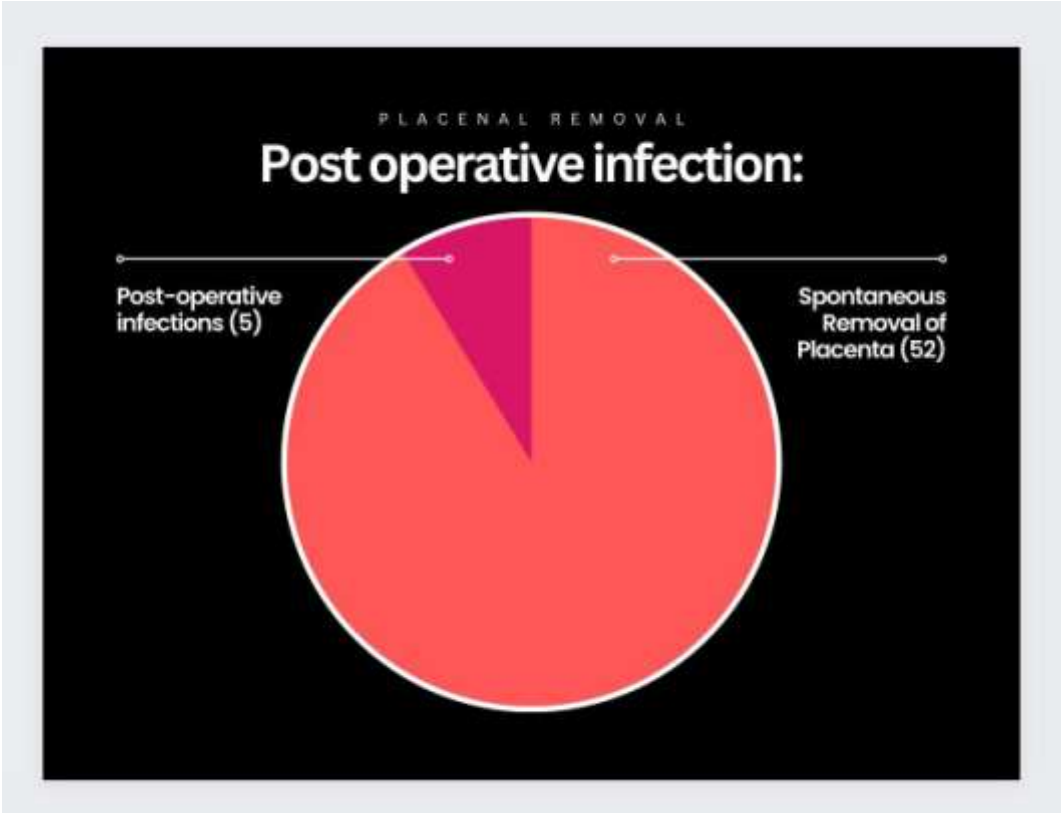
Themethodofplacentalremovingisonesuchprocedurethatcanaffectoutcomesofcesareandelivery, such as the amount of bleeding during intraoperative and postoperative, the time ofoperation, the occurrence of postoperative endometritis and may contribute to an increase ordecrease in the incidence of CS. But the ideal method of placental removal during CS is still acontroversial issue. The choice mainly bases on the surgeon's preference. At present, theresearch of placenta resection technology mainly focus on "manual" or "spontaneous"removal.Manual placental removal remains a conflicting issue owing to the risk of postpartumhemorrhage,postpartumendometritis,andplacentalabnormalitiesinsubsequentpregnancies.

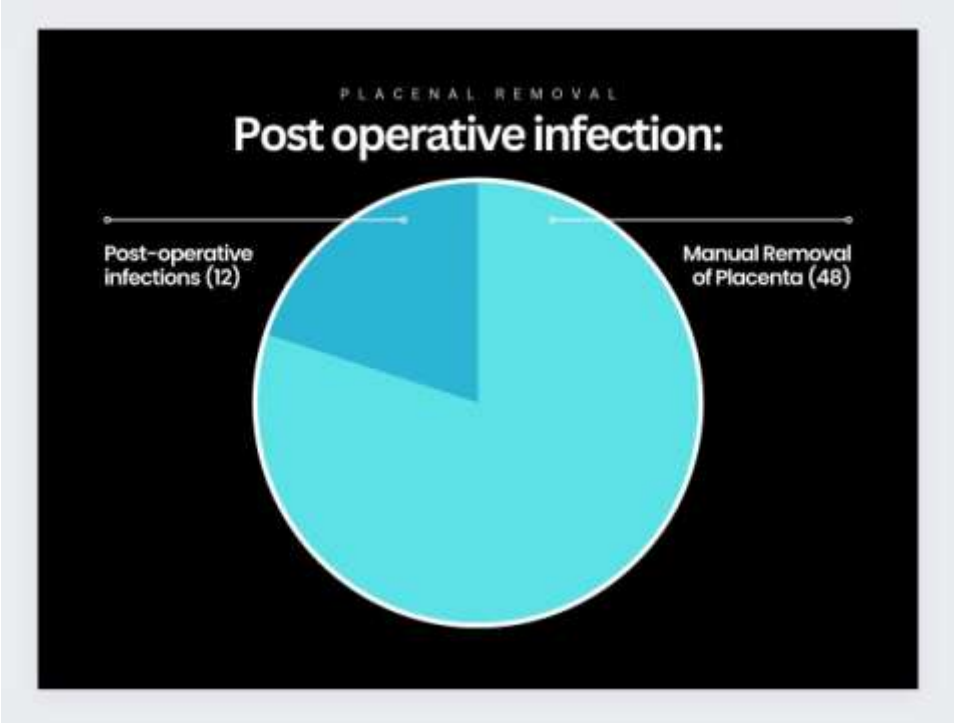
Samplesize:
100patients

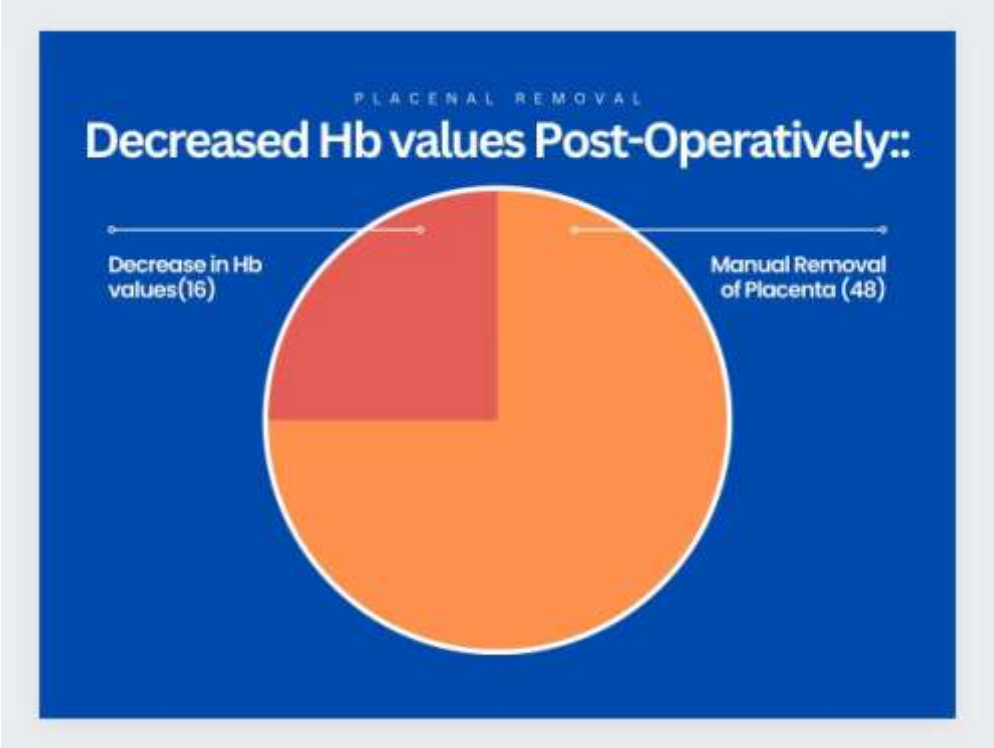
Inclusioncriteria:
Postnatalpatients

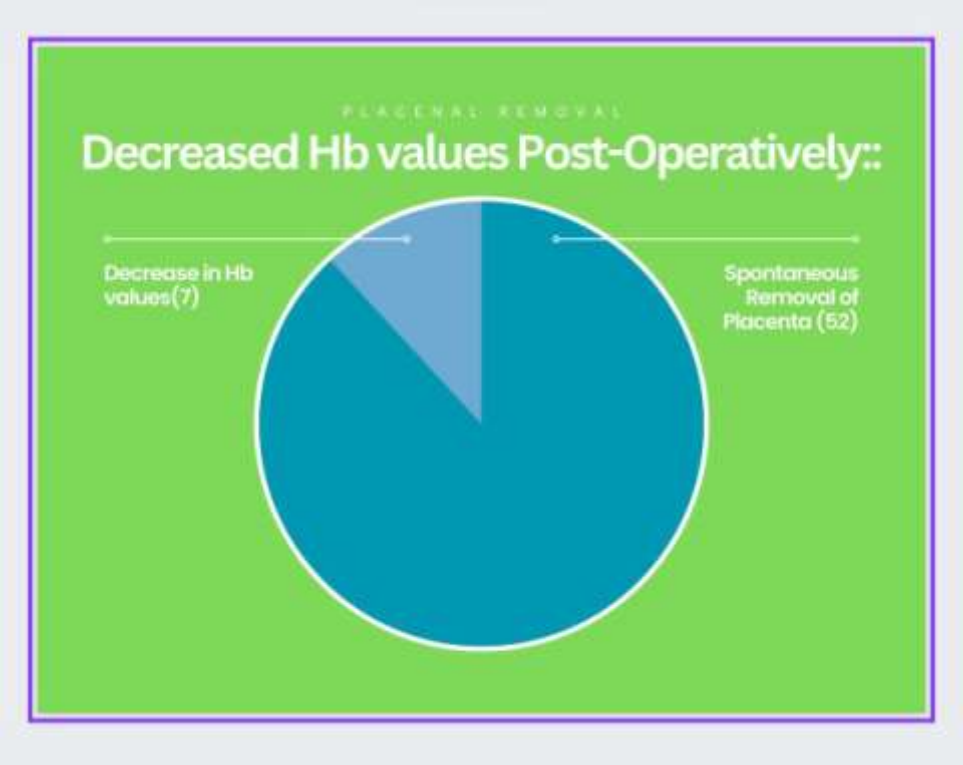
Ethical Considerations:
Information obtained for the purpose of study will be keptconfidential. None of the study participants will be harmed in any manner. The decision towithdrawfromthestudywillbecompletelyuptotheparticipants,therequiredcarewillnotbewithdrawn.


Placental Removal
Manual Removal (48)
Spontaneous Removal (52)


PLACENAL REMOVAL
Post operative infection:
Post-operative infections (5)
Spontaneous Removal of Placenta (52)


PLACENAL REMOVAL
Post operative infection:
Post-operative infections (12)
Manual Removal of Placenta (48)


PLACENAL REMOVAL
Decreased Hb values Post-Operatively::
Decrease in Hb values(16)
Manual Removal of Placenta (48)



Discussion:-

Afterthefetalisremoved,theuterinemusclesbegintocontractandretractimmediately,therebylessening the size of the uterus; As the uterus becomes smaller, the size of the placental bed issignificantly smaller than that of the incompressible placenta; This causes shear movement,which results in separation of the placenta and compression of the new exfoliated vesselssupplying the placental bed, thereby reducing blood loss; This mechanism may explain whyspontaneousplacentalseparationcauseslessbloodlossthanmanualplacentaldissection.

Manual placental dissection could cause the problem of fetal membrane residue and affect thecontractile function of uterus, which is an important factor in the increase of bleeding. Abnormalplacentalattachment,placentaladhesionorretentionarethemostcommonplacentalfactorsofbleedingduringmanualseparationoftheplacenta.

An additional important factor that affects the amount of bleeding during CS was the type ofuterineincision.Patientswithverticallowersegmentincisionorclassicaluppersegmentincisionareknownformorebloodlosthanthetransverselowersegmentincision.

In regard to endometritis, endometritis is the most common complication of cesarean section,withanincidenceofbetween5%and85%,dependingonthepatientpopulationinvestigated.Inour study, pooled results showed that the risks of endometritis in CS was increased by themanualmethodofplacentalremovalcomparedwiththespontaneousplacentaldelivery. Meanwhile,somestudieshaveclaimedthathigherrisksofendometritis.