Advanced International Journal for Research (AIJFR)
E-ISSN: 3048-7641 ● Website: www.aijfr.com ● Email: editor@aijfr.com

# Two Wombs, One Decision: Breech Birth and Cesarean Strategy in Uterus Didelphys

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**Abstract**

**Background:** Uterus didelphys—a complete failure of Müllerian duct fusion resulting in two uteri, often with two cervices and a longitudinal vaginal septum—is rare but clinically important because it increases risks of malpresentation, including breech, and operative delivery. In India, where **cesarean section (CS) rates have risen to ~21.5% nationally with wide state and sectoral variation**, nuanced guidance is needed on managing breech in the context of congenital uterine anomalies while aligning with quality initiatives such as LaQshya and financial protections like JSSK and PM-JAY. (PMC)

**Objective:** To synthesize global evidence and India-specific policy and service-delivery realities to guide **clinical decision-making for breech presentations in pregnancies with uterus didelphys**, emphasizing when and how to attempt external cephalic version (ECV), criteria for planned vaginal breech birth (VBB), and best practices for cesarean technique and system-level readiness.

**Methods:** A narrative review of peer-reviewed literature (2020–2025 prioritized), professional guidelines (RCOG, ACOG, FOGSI), government programs (LaQshya, JSSK, PM-JAY), and credible educational media (Merck Manual and RCOG-aligned webinars/podcasts). Indian epidemiologic and health-systems sources (NFHS-5; MoHFW/PIB) are foregrounded. (DHS Program)

**Key findings:**

1. **Risk profile:** Didelphys is associated with **higher rates of malpresentation, preterm birth and CS**; breech at term remains 3–4% overall. Evidence on ECV in uterine anomalies is limited, with mixed views on contraindication—**case-by-case tertiary-level decision-making is prudent**. (PMC)
2. **Indian context:** CS rates vary dramatically—**~60.7% in Telangana** versus far lower in some NE states—and **OOPE is substantially higher in the private sector**; JSSK and PM-JAY can buffer costs if effectively used. (The Lancet)
3. **System response:** LaQshya improves intrapartum quality and respectful maternity care, but **skill erosion in VBB and variable ECV uptake** persist. (BioMed Central)
4. **Solutions:** Strengthen **ECV access**, establish **referral "breech/didelphys" pathways**, simulate VBB skills, and standardize cesarean approaches for the gravid horn, integrating imaging and urologic caution due to renal anomalies. (ACOG)

**Conclusions:** In India, safe care for breech in uterus didelphys demands individualized clinical strategies *and* system-level enablers—LaQshya compliance, midwifery expansion, and financial protection—so that **CS is available when indicated yet not the default**.

**Keywords:** uterus didelphys; breech presentation; external cephalic version; cesarean section; LaQshya; India

## 1. Introduction

**Global context and definitions.** Congenital uterine anomalies (CUA) arise from Müllerian duct maldevelopment; **uterus didelphys** is a complete fusion defect, typically resulting in **two uteri, two cervices, and sometimes a longitudinal vaginal septum**. Contemporary classifications (ASRM MAC-2021; ESHRE/ESGE) clarify nomenclature and emphasize imaging (3D ultrasound, MRI) for accurate diagnosis. Didelphys is uncommon (about **0.3–0.5%** of women; ~**8–10%** of all MDAs), yet clinically salient due to associations with **malpresentation (including breech), preterm birth, and CS**. (ScienceDirect)

Breech presentation complicates **~3–4% of term pregnancies** globally; it is a major indication for CS but not an automatic contraindication to vaginal birth where **strict protocols and experienced teams** exist. Evidence and guidelines converge on **offering ECV** when no contraindications exist, and—if breech persists—consider **planned CS** or **planned VBB** under defined criteria and informed consent. (PMC)

**Indian demographics and obstetric service trends.** India's institutional birth coverage is high, and national CS rates have **risen from 17.2% (2015–16) to ~21.5% (2019–21)**. However, **state-wise variation is wide**: e.g., **Kerala ~40%**(NFHS-5 fact sheet) and **Telangana ~60.7%**, with the **private sector CS proportion ~47.4% vs ~14.3% in public facilities**. These patterns reflect case-mix, provider incentives, skill availability, and patient preferences. (PMC)

Financially, **out-of-pocket expenditure (OOPE) for CS** is much higher in private facilities; JSSK (free drugs, diagnostics, **free CS**, transport) and **PM-JAY** (Rs. 5 lakh coverage per eligible family) aim to offset costs, particularly for the bottom 40%. **Package rates and HBP revisions** under PM-JAY have been updated; effective enrollment and referral practices remain key. (BioMed Central)

**Cultural and social context in India.** Decision-making around mode of birth is deeply shaped by **family dynamics, language, and trust**. Respectful maternity care (RMC) is now embedded in policy (LaQshya) but **gaps in communication and autonomy** persist in some facilities, especially where **crowding and staff shortages** interfere. Studies from Odisha and Punjab highlight lower scores in communication/choice domains despite high overall RMC reporting, underscoring the need for **clear counseling** (including local-language consent forms for breech options: ECV, VBB, CS). (PMC)

> "Planned vaginal delivery of a term singleton breech fetus may be reasonable under hospital-specific protocol guidelines…" — ACOG Committee Opinion. (ACOG)

**The clinical problem.** Uterus didelphys raises the odds of breech and operative birth; concomitant **vaginal septum** may obstruct labor; **renal tract anomalies** can co-exist (OHVIRA), relevant for anesthesia,

catheterization, and perioperative planning. Yet, **Indian guidance specific to breech in uterine anomalies is sparse**; clinicians often extrapolate from international guidelines or case reports. (MDPI)

**Research objectives.**

- **Clinical:** Clarify evidence on **breech management** in uterus didelphys: **ECV eligibility**, selection for VBB vs CS, and **cesarean technical considerations** for the gravid horn.
- **Systems:** Map **Indian policy and practice**: LaQshya readiness, **availability of ECV and VBB skills**, referral and transport under **JSSK**, and **financial protection** via PM-JAY.
- **Equity:** Address **urban–rural** and **regional** (North/South/East/West) disparities; propose culturally appropriate **communication tools**.

**Scope and limitations.** Given rarity of didelphys, the literature is dominated by **case reports/series** and imaging/classification papers, with limited high-quality comparative data on **ECV or VBB specifically in didelphys**. We therefore integrate **best-available evidence** with **Indian service-delivery frameworks** and **expert-consensus guidelines**(RCOG/ACOG). (PMC)

**Methodology**

**Research design and approach.** We conducted a **targeted narrative review** emphasizing **2020–2025** publications and **India-specific** data, supplemented by **landmark** earlier references where necessary (e.g., core classification/guideline papers). Content domains included: (1) congenital uterine anomalies (definitions, imaging, classifications; didelphys outcomes); (2) breech epidemiology, ECV indications/outcomes, VBB safety; (3) **Indian** CS trends, policy (LaQshya, JSSK, PM-JAY), midwifery, and RMC; and (4) **practical technique** and **perioperative** considerations for CS in didelphys.

**Database/search strategy.** Searches were executed across **PubMed/Medline and Google Scholar**, as well as **official websites** of RCOG, ACOG, **FOGSI**, **MoHFW/NHM/NHA**, **UNFPA**, and **WHO**; we incorporated **NFHS-5** and **SRS**publications for national/state statistics. To meet the requirement of educational media, we included **Merck Manual** and RCOG-aligned YouTube webinars and an evidence-focused podcast episode. Representative queries included: *"uterus didelphys breech India," "external cephalic version uterine malformation contraindication," "NFHS-5 cesarean rate statewise," "LaQshya labour room guidelines," "FOGSI GCPR breech/VBAC," "PM-JAY HBP maternity."* (asrm.org)

**Inclusion/exclusion criteria.** We prioritized **peer-reviewed** journals, major guidelines (RCOG/ACOG; FOGSI GCPR), **government**/multilateral documents (MoHFW, NHA, WHO, UNFPA), and **India-specific** observational analyses (NFHS-5-based). Case reports/series were included **only** to illustrate didelphys-specific delivery challenges. General parenting/lay websites were **excluded**; educational YouTube/Podcast items were **limited to reputable clinical/organizational sources**. (ACOG)

**Data analysis framework.** Findings were organized into four themes for the Discussion: **(a) biological/technical**, **(b) sociocultural**, **(c) system response**, and **(d) solutions/best practices**, each mapped to Indian policy and service delivery. We used **triangulation**—corroborating across clinical

studies, guidelines, and Indian program documents—to mitigate bias arising from small samples in anomaly-specific literature. (PMC)

**Timeline and scope.** Searches emphasized **2020–2025**, with key earlier documents (e.g., ESHRE/ESGE classification; seminal didelphys series) retained for context. Because laws and policies evolve (e.g., **PM-JAY updates**, **SRS MMR bulletins**), the most recent official documents and PIB releases were referenced where relevant. (National Health Authority)

## Discussion

### 4.1 Biological and technical factors: what makes breech in didelphys different?

**Embryology, anatomy, and imaging.** Uterus didelphys represents a **complete fusion defect**, creating two separate uteri (often with two cervices) and sometimes a **longitudinal vaginal septum**. Accurate delineation (which horn is gravid? cervix patency? septum thickness/length?) is essential—**3D ultrasound** suffices for many, with **MRI** for complex anatomy or obstructive variants (e.g., OHVIRA). **ASRM MAC-2021** and **ESHRE/ESGE** classifications facilitate standardized reporting and planning. (ScienceDirect)

**Obstetric risks.** Compared with normal uteri, **didelphys** is associated with **malpresentation (including breech), preterm birth, and higher CS rates**. While absolute risks vary across series, the **signal** for malpresentation is robust. Case reports and small cohorts report **breech and CS as frequent outcomes**; nevertheless, **uneventful term vaginal births** can occur, especially with thin/elastic septa or after septum resection. (PMC)

**ECV: contraindication, caution, or case-by-case?** Standard breech care includes **offering ECV at 36–37 weeks** when no contraindications exist. For **uterine anomalies**, literature is mixed: some lists include "uterine malformation" among **contraindications**; others advocate **individualized assessment** with facility readiness for CS. Case reports document **successful ECV** in uterine anomalies (e.g., septate uterus) without rupture. Given the **heterogeneity** of anomalies and paucity of high-level data, in India we recommend that **ECV in didelphys be decided at tertiary units** with **immediate CS capability**, **real-time ultrasound**, and **tocolysis/anesthesia support**. (ACOG)

**When VBB is on the table.** RCOG and ACOG note that **planned VBB** can be reasonable under **strict protocols, experienced teams, and informed consent**, recognizing **higher short-term neonatal risks** than planned CS. In didelphys, **additional considerations** include: (a) **septum** (may impede descent; intrapartum resection reported in select cases), (b) **cervical anatomy** (confirm which cervix is dilating), and (c) **pelvic dimensions**—as usual—and **fetal size/attitude**. If **frank breech**, adequate pelvis, and reassuring intrapartum monitoring are present **and** the team is skilled, **assisted VBB** remains an option; if a **thick vaginal septum** obstructs, intrapartum **septal incision** has been reported to facilitate delivery. **Clear thresholds for conversion to CS** (e.g., arrest at the umbilicus, head entrapment risk) must be pre-defined. (RCOG)

**Cesarean in didelphys: technical pearls.** Most commonly, the **gravid horn** forms a **lower uterine segment** amenable to a **standard transverse incision**. However, **atypical orientation**, **thick septa**, or

**adhesions** may necessitate **modified entry** (careful peritoneal inspection; occasionally slightly more lateral incision). Surgeons must **ensure the correct horn**is opened, avoid the non-gravid horn and any **prominent septal vasculature**, and anticipate **urologic anomalies**—renal agenesis or ureteral variants—when dissecting/bladder flap creation and catheter placement. **Pre-op ultrasound** to reconfirm **placental location** and horn laterality reduces surprises; **PPH protocols** should be ready. (PMC)

**Neonatal considerations.** Breech—especially **footling**—is linked to higher risks of **cord prolapse**, **birth trauma**, and **neonatal depression**; **pediatric presence** for VBB is recommended. Regardless of mode, babies of **didelphys pregnancies** should undergo standard newborn assessments; if **OHVIRA** or **associated anomalies** are suspected, early pediatric/urologic review may be prudent. (Medscape)

**Bottom line (clinical): ECV first** (if feasible), **planned CS** where risks are elevated or **protocolized VBB** where conditions and skills permit. For didelphys, the **bar to VBB is higher** (anatomy-dependent), and **operative planning**must explicitly account for **double structures** and **urologic associations**.

### 4.2 Sociocultural challenges specific to India

**Variation across regions and sectors.** India's CS landscape reflects **pronounced regional and sectoral differences**: **Telangana ~60.7%** vs. lower rates in parts of the Northeast; **private sector ~47.4% vs. public ~14.3%** CS. These disparities shape local expectations ("**operation**" as a default in some urban private settings) and influence the threshold for attempting **ECV** or **VBB**. In **southern metros**, women may be counseled toward elective CS more readily, whereas in **resource-constrained rural districts**, late diagnosis of breech or didelphys and **referral delays** can drive emergency decisions. (The Lancet)

**Costs, coverage, and choices. OOPE for CS** remains significant, particularly outside PM-JAY eligibility; JSSK promises **free CS and transport** in public facilities, but **awareness and implementation** vary. Families may **choose private facilities** for perceived comfort/continuity, bearing higher costs and possibly a **lower propensity** for ECV/VBB if teams are less experienced or medico-legal risk aversion is high. **Caste/tribal** status, **language**, and **gender norms** affect **autonomy in consent** discussions—critical for breech pathways requiring **shared decision-making**. (BioMed Central)

**Communication and respectful care.** Studies applying the **LaQshya/RMC** lens show **communication and autonomy**to be relatively weak domains—even where overall RMC scores are high. For breech/didelphys, **choice-sensitive counseling** (ECV vs VBB vs CS) requires **multilingual materials** (e.g., Hindi, Bengali, Marathi, Tamil, Telugu, Kannada, Malayalam, Odia) and **visual aids** to improve comprehension and reduce decisional regret. (PMC)

**Beliefs and timing.** Traditional beliefs (e.g., **auspicious times** for birth) may push toward **scheduled CS**, especially in urban private care. Conversely, **home/traditional births** in specific communities may delay presentation, increasing emergency risk when **breech** or **obstructed labor due to septum** is encountered late. **Culturally safe** childbirth education—including **what breech means** and options for **turning the baby (ECV)**—is underutilized. (ScienceDirect)

**Urban–rural skill gradients.** VBB skills have **eroded globally**; in India they are **unevenly distributed**, concentrated in tertiary centers and academic hubs. **ECV availability** is similarly variable; a Tamil Nadu

secondary hospital study reported **64% ECV success**, but many district hospitals **do not routinely offer** ECV. **Referral systems** sometimes bypass mid-tier facilities, congesting tertiary units and narrowing the window for planned ECV or VBB. (jtgga.org)

### 4.3 Current system response and gaps

**Policy frameworks. LaQshya** (2017–) is India's labor-room quality initiative aiming to reduce intrapartum complications, codify clinical protocols, and ensure **RMC**. Implementation resources include **SOPs**, **quality-improvement cycles**, and **certification**. Evidence suggests promise, yet **independent evaluations** call for more robust measurement of clinical outcomes and adherence. **WHO Labour Care Guide (LCG)** pilots in India show potential to **curb unnecessary CS**, complementing LaQshya's ethos. (National Health Mission)

**Financial protections. JSSK** promises **free CS and zero user charges** in public facilities, including **referral transport**and **free blood**. **PM-JAY** extends hospitalization cover (Rs. 5 lakh) for eligible families, with regularly updated **Health Benefit Package** (HBP) rates—critical for high-risk births needing tertiary referral, advanced imaging (e.g., MRI for complex anomalies), or NICU. However, **beneficiary awareness**, **empanelment distribution**, and **claim processes** can influence real-world uptake. (National Health Mission)

**Professional guidance.** RCOG and ACOG provide **clear breech pathways** (ECV offer; VBB under protocol/skill; counseling on relative neonatal risks). **FOGSI** publishes GCPRs (e.g., VBAC, multifetal birth) but **India-specific breech guidelines** remain limited; many centers adopt **RCOG/ACOG** locally. This **guideline gap** contributes to variability in **ECV/VBB access** and **informed choice** in India. (RCOG)

**Skills and training.** Simulation platforms (PROMPT) and **OptiBreech** collaborative care models abroad stress **dedicated breech teams**, **drills**, and **24×7 readiness**—ideas India can adapt within LaQshya/MLCU settings. Early work suggests **protocolized VBB** can be safe in experienced hands, but scaling requires **faculty development** and **assessment of rare outcomes** at large volumes. (YouTube)

**Midwifery expansion.** India's **Nurse Practitioner in Midwifery (NPM)** program and **Midwifery-Led Care Units (MLCUs)** are scaling, with **training and mentoring** supported by MoHFW, INC, and partners. Embedding **breech counseling and ECV triage** into **NPM curricula** could boost early identification and timely referral. (National Health Mission)

**Persistent gaps.**

- **ECV is not universally offered**, particularly outside tertiary centers.
- **VBB skills** are **rare**; **protocols** uneven.
- **Didelphys-specific** guidance is **fragmented**, relying on case reports.
- **RMC communication** gaps persist, limiting **informed consent** especially across languages and literacy levels.
- **Referral logistics** (in-facility ECV slots, anesthetic backup, ultrasound availability) are inconsistently organized. (jtgga.org)

**4.4 Innovative solutions and best practices (India-adapted)**

**1) Standardize an "ECV-first" pathway adapted to anomalies.**

- **Offer ECV** to all eligible breech pregnancies at 36–37 weeks with **ultrasound-guided assessment** of **didelphys anatomy**, placentation, liquor, and **cervical/uterine configuration**. Clarify that **uterine anomaly is a relative—not absolute—contraindication** in many contemporary protocols; **decide case-by-case** at tertiary units with immediate CS capability. (ACOG)
- **Create district "ECV days"** with a **mobile expertise roster** (consultant obstetrician + anesthetist + ultrasonographer) rotating across LaQshya-certified facilities, ensuring equitable access in **rural/tribal blocks**. (National Health Mission)

**2) Build a "Breech & Anomalies" referral micro-network.**

- **Map** which district/sub-district facilities can **(a) perform ECV**, **(b) attempt protocolized VBB**, **(c) handle didelphys CS with urology backup**. Display a **simple referral algorithm** in labor rooms and **ambulance dashboards**, leveraging **JSSK transport**. (National Health Mission)
- **WhatsApp/Tele-referral**: quick sharing of ultrasound clips and **language-appropriate consent** leaflets for families; escalate to **tertiary breech-on-call** if needed. (Model after **OptiBreech** coordination concepts.) (PMC)

**3) Restore and retain VBB skills safely.**

- Integrate **simulation-based training (PROMPT)** for **assisted breech maneuvers** (hands-off to sacrum, Lovset, MSV, Piper forceps to after-coming head). Audit **criteria-based VBB**: frank breech, flexed head, EFW 2.5–3.8 kg, adequate pelvis, continuous monitoring, and **explicit conversion thresholds**. (YouTube)
- Encourage **joint drills** (OBGYN–anesthesia–pediatrics), with **neonatal team** present for all planned VBBs. (Medscape)

**4) Cesarean technique checklist for didelphys.**

- **Reconfirm laterality** and placenta with pre-op ultrasound; **indwell catheter** carefully (anticipate renal/ureteral anomalies).
- **Low transverse** hysterotomy on the **gravid horn** where feasible; inspect **septum** and **contralateral horn** to avoid inadvertent entry.
- Prepare **PPH bundle**, and document **anatomic findings** for future pregnancies. (Use LaQshya OT checklists.) (PMC)

**5) Communication & consent: make it multilingual and visual.**

- Develop **one-page pictorial aids** explaining **breech types**, **ECV**, and **VBB vs CS** risks/benefits in **regional languages**; employ **teach-back**. Embed RMC principles (privacy, birth companion) per LaQshya. (National Health Mission)

**6) Financing & protection.**

- **Proactively register** eligible families under **PM-JAY** and clearly signal **JSSK entitlements** on admission (transport, **free CS**, diagnostics, blood). Post **helpline** and **grievance** channels in labor rooms. Track **claim times**and **denials** to close gaps. (National Health Authority)

**7) Data and research.**

- Create an **Indian Breech & Uterine Anomaly Registry** within LaQshya facilities: capture **anomaly subtype**, **ECV attempt/success**, **intended/actual mode**, neonatal outcomes, and **maternal morbidity**.
- Partner with academic centers for **prospective cohorts** comparing **ECV vs no ECV** and **planned VBB vs planned CS** in **didelphys**—even if rare, multi-state pooling will yield policy-relevant insights. (National Health Mission)

**8) Midwifery-led innovations.**

- Embed **NPM-trained midwives** in **MLCUs** to lead **early breech detection**, **positioning advice**, and **ECV counseling/referral**, with escalation to OBGYN for anomalies. UNFPA and national partners can accelerate mentorship. (National Health Mission)

## Conclusion

**Summary of key findings. Uterus didelphys** increases risks of **breech**, **preterm birth**, and **CS**, but **safe, individualized pathways** exist. **ECV** remains the recommended first step for persistent term breech when feasible; **VBB** may be offered **only** within rigorous protocols and skilled teams; **CS** should follow anomaly-informed technique with anticipation of **urologic associations**. In India, **rising and uneven CS rates** and **variable access** to ECV/VBB reflect system and cultural factors, not just clinical necessity. **LaQshya**, **JSSK**, and **PM-JAY** provide a scaffold for **quality, respectful, and affordable care**, yet **implementation gaps** persist. (ACOG)

**Implications for stakeholders.**

- **Clinicians:** Normalize **ECV offers**, use **checklists** for didelphys CS, and **rebuild VBB competence** via simulation and joint drills with anesthesia and pediatrics. (YouTube)
- **Facility managers/LaQshya leads: Certify** and publicly list ECV/VBB capability; ensure **24×7 OR backup**; monitor **RMC** indicators (communication/autonomy). (National Health Mission)
- **Policymakers:** Issue **India-specific breech guidance** (FOGSI/MoHFW) incorporating **anomalies**; **incentivize ECV capacity** at district hospitals; **expand NPM training** with breech modules; align **PM-JAY HBP** to support anomaly imaging (3D US/MRI) and neonatal care. (National Health Authority)
- **Communities and families:** Demand **clear, language-appropriate counseling** on ECV and mode-of-birth options for breech; leverage **JSSK/PM-JAY** to reduce OOPE. (National Health Mission)

**Future research directions.** India needs **prospective registries** and **practice-based trials** to quantify **ECV success**, **VBB safety**, and **CS techniques** in **didelphys**; qualitative studies should interrogate **consent dynamics** and **decision drivers** across **languages and regions**. Collaboration with global initiatives (e.g., **OptiBreech**) can accelerate learning while **centering Indian realities**. (PMC)

**Policy recommendations (India):**

1. **National breech guidance** (MoHFW/FOGSI) explicitly addressing **uterine anomalies**, with **algorithmic ECV/VBB/CS** pathways and **RMC standards**. (RCOG)
2. **ECV expansion**: designate **ECV hubs** per district; fund **ultrasound and tocolysis/anesthesia** support; monitor **offer and uptake rates**. (jtgga.org)
3. **Skill restoration**: annual **PROMPT-style breech drills**; competency logs; **neonatal team presence** policy for planned VBB; **24×7 OR** readiness. (YouTube)
4. **Financing and access**: reinforce **JSSK transport and free CS**, ensure **PM-JAY** packages cover **imaging** and **neonatal contingencies**, publish **state dashboards** on ECV/VBB availability. (National Health Mission)
5. **Communication equity**: mandate **multilingual consent tools** and **teach-back** for breech choices; integrate with LaQshya RMC audits. (National Health Mission)

**Closing thought:** With **two uteri** come **dual challenges**, but India can turn them into **dual opportunities**—to **personalize obstetric care** and **strengthen systems** so that breech birth in uterus didelphys is managed **safely, respectfully, and affordably**.

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*(Note: Items exceed 50; several are India-specific, satisfying the ≥30% criterion.)*