Diagnostic Errors in Aesthetic Gynecology: A Review of Recent Evidence (2020-2025)

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Abstract. Background: Aesthetic gynecology, encompassing elective procedures to enhance the appearance and function of the female genital tract, has grown in demand. With increasing complexity and elective nature of these interventions, the risk of diagnostic errors—misdiagnosis, delayed diagnosis, incorrect patient selection or misunderstanding of underlying pathology—becomes relevant. Objective: This review aims to summarise the evidence from 2020-2025 on diagnostic errors in aesthetic gynecology, identify contributory factors, and suggest strategies to minimise harm.

Methods: Literature from peer-reviewed journals was searched for combinations of terms including "aesthetic gynecology", "cosmetic gynecology", "diagnostic error", "misdiagnosis", "female genital cosmetic surgery" and "gynecology safety". Articles published between 2020 and 2025 were included.

Results: Although direct data on aesthetic gynecology diagnostic errors remain limited, related fields (obstetrics/gynecology diagnostic error, body-image disorders in genital cosmetic patients) reveal patterns of missed diagnoses, psychological disorders (eg, body dysmorphic disorder) and procedural selection errors. Key risk factors include lack of standardised terminology, heterogeneous outcome measures, insufficient practitioner training and patient psychological screening.

Conclusion: Diagnostic accuracy in aesthetic gynecology is inadequately addressed in current literature; better frameworks, training and screening protocols are needed. Greater attention to diagnostic decision-making, patient psychological assessment and standardised metrics may reduce adverse outcomes.

Keywords: aesthetic gynecology; cosmetic gynecology; diagnostic error; misdiagnosis; female genital cosmetic surgery; patient safety

Introduction

The field of aesthetic gynecology has expanded substantially over recent years, representing a subset of gynecologic interventions focused on elective cosmetic or functional enhancement of the female genitalia. (obstetricsandgynaecologyforum.com) Unlike traditional gynecological procedures aimed at pathology or reproductive health, aesthetic gynecology often engages patients' desires for appearance, self-image, sexual satisfaction and quality of life. A growing body of literature has addressed procedures such as labiaplasty, vaginoplasty, clitoral hood reduction, labia majora augmentation and energy-based treatments for vaginal laxity. (ResearchGate)

With this shift comes new diagnostic challenges: proper patient selection, recognition of underlying functional vs aesthetic concerns, screening for psychological conditions (e.g., body dysmorphic disorder), and accurate identification of anatomical or functional pathology prior to intervention. Diagnostic errors in this context may lead to inappropriate procedures, patient dissatisfaction, complications or legal consequences. Though diagnostic error has been studied in obstetrics and gynecology more broadly (eg, in obstetric morbidity/mortality) (PubMed) the specific context of aesthetic gynecology remains under-explored.

This review therefore focuses on diagnostic errors in aesthetic gynecology: how they present, what contributes to them, and what steps may mitigate risk.

Aim

To review the available literature from 2020-2025 regarding diagnostic errors in aesthetic gynecology, identify key contributory factors, and propose strategies to improve diagnostic safety in this domain.

Materials and Methods

A narrative literature review was conducted. Electronic databases (PubMed, EMBASE, Google Scholar) were searched for peer-reviewed articles published between January 2020 and November 2025. Search terms included combinations of: "aesthetic gynecology", "cosmetic gynecology", "female genital cosmetic surgery", "diagnostic error", "misdiagnosis", "delayed diagnosis", "patient selection", "body dysmorphic disorder", "vaginoplasty complications". Inclusion criteria: English language, human studies, relevance to diagnostic processes (ie, patient selection, screening, misdiagnosis or delayed diagnosis) in aesthetic gynecology or related gynecologic practice. Exclusion criteria: non-elective gynecologic surgery only (eg, oncologic), purely surgical-technique papers without diagnostic focus. Data extracted included study type, diagnostic error type, contributory factors, outcomes. Given the limited direct studies in aesthetic gynecology, the review also draws on adjacent gynecologic diagnostic error literature and psychological screening research relevant to cosmetic genital procedures.

Results

Overview of available evidence

Direct studies on diagnostic errors in aesthetic gynecology are scant. For example, a recent qualitative study of Swiss obstetrician-gynecologists found that many encountered patients dissatisfied with genital appearance — potentially indicative of body dysmorphic disorder (BDD) — but lacked sufficient mental-health literacy and often did not screen patients appropriately. (SpringerLink) Another review of aesthetic gynecology noted the heterogeneity of outcome measures, lack of standardised definitions and short-term complication data, suggesting risk of mis-classification or under-recognised diagnostic pitfalls. (ResearchGate)

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In adjacent gynecology/obstetrics contexts, diagnostic errors (delayed, missed, incorrect) are recognised. A systematic review in obstetrics/gynecology found major contributing factors to medical errors include delay of care, poor coordination/management, scarce personnel/training/knowledge. (MDPI) Also, a 2024 review described diagnostic errors in obstetric morbidity/mortality, emphasising challenges in defining/capturing errors and the need for improved frameworks. (PubMed)

Types of diagnostic errors relevant to aesthetic gynecology

Based on synthesis of the evidence, the following error types emerge:

- **Wrong patient selection**: Failure to recognise underlying functional pathology (eg, pelvic-floor laxity, prolapse, hormonal/genitourinary issues) masked as purely aesthetic concerns.

- **Missed or delayed identification of psychological conditions**: For instance, women with BDD seeking genital cosmetic surgery may be unsuitable, yet may undergo procedures without appropriate screening. (SpringerLink)

- **Inadequate anatomical assessment or imaging**: Less rigorous diagnostic work-up leading to under-recognised anatomical risks or complications.

- **Miscommunication or misunderstanding of patient expectations**: Leading to mis-aligned diagnostic impression of what the patient truly needs.

- **Terminology/definition error**: Heterogeneity in how 'normal' genital appearance or laxity is defined impairs diagnostic clarity. (obstetricsandgynaecologyforum.com)

Contributory factors

The review identifies several contributory factors for diagnostic errors in aesthetic gynecology:

- Lack of standardised screening tools for patient psychological readiness (eg, BDD screening) and for aesthetic gynecology diagnostic pathways.

- Heterogeneous outcome and procedural definitions obstruct consistent diagnostic criteria.

- Practitioner training may emphasise surgical technique over diagnostic decision-making and psychological assessment.

- Patient demand influenced by social media/body-image pressures may impede objective assessment.

- Systemic factors: time pressure, elective procedure business models, inadequate multidisciplinary collaboration.

- Borrowing from broader OBGYN error literature: delays in referral, incomplete medical records, communication breakdowns. (MDPI)

Evidence of impact

While direct quantitative rates of diagnostic errors in aesthetic gynecology aren't widely reported, the implications include patient dissatisfaction, procedure revision/re-

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intervention, legal claims (a study reported diagnostic errors comprised ~15.6% of gynecologic-surgical litigation in an eleven-year case series) (ejog.org) and compromised outcomes due to delayed identification of underlying pathology (eg, in endometriosis diagnostic delays of 4.4-10 years). (Frontiers)

Discussion

The paucity of dedicated research into diagnostic errors in aesthetic gynecology is a major limitation, yet the convergence of insights from adjacent fields highlights important risk areas. One key theme is the blending of elective cosmetic frameworks with medical diagnostic imperatives: aesthetic gynecologists must ascertain not only that a procedure is technically feasible, but also that the indication is appropriate, the patient is psychologically and anatomically suitable, and underlying pathology is excluded. The failure to screen for BDD, for instance, can lead to inappropriate surgery and dissatisfaction. The study by Dworakowski et al. showed that many gynecologists recognise dissatisfaction but lack training in mental health screening. (SpringerLink)

Another theme is the challenge of defining "normal" versus "abnormal" in genital aesthetics. The lack of standardized metrics means patient perceptions and practitioner evaluations may diverge, increasing risk of missed or incorrect diagnostic judgment. The systematic review of aesthetic gynecology techniques noted that terminology and outcome measures are heterogeneous, making comparisons and diagnostic clarity difficult. (ResearchGate)

From a systems perspective, the broader OBGYN error literature suggests that delays, mis-coordination, insufficient staff training and communication breakdowns all contribute to diagnostic error. These same system-level vulnerabilities apply in aesthetic gynecology, especially when elective procedures are rapidly proliferating in varied settings. (MDPI)

Implications for practice include: the need for multidisciplinary evaluation (including psychology/psychiatry), standardised pre-operative diagnostic protocols (physical, imaging, functional assessment, psychological screening), improved practitioner training in diagnostic decision-making (not just surgical technique), and robust outcome tracking. Further research should work to quantify error rates, identify root causes specific to aesthetic gynecology, and test interventions (such as screening questionnaires). The questionnaire developed by Herkiloğlu et al. (2022) for genital cosmetic procedure demand is an example of emerging diagnostic-screening tool. (jarem.org)

Conclusion

Diagnostic errors in aesthetic gynecology represent an under-recognized patient-safety and quality issue. While direct empirical data remain limited, evidence from adjacent gynecologic domains combined with emerging insights into aesthetic practice identify clear risk pathways: incorrect patient selection, under-screening for psychological conditions, ambiguous terminology and system-level vulnerabilities. To

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enhance safety and outcomes, the field should prioritise standardised diagnostic frameworks, practitioner training in diagnostic processes, multidisciplinary assessment, and research into error incidence and mitigation. Future work should aim to establish diagnostic error metrics specific to aesthetic gynecology and develop validated screening and decision-support tools.

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