

Chemical castration and sexual crimes against minors: a legal-constitutional examination from a human rights perspective in Ecuador

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Date received: December 11, 2025

Date accepted: January 5, 2026

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How to cite: Maza, E., Ochoa, M. (2026). *Chemical castration and sexual crimes against minors: A constitutional–legal examination from a human rights perspective in Ecuador.. Revista Universidad de Guayaquil. 140 (1), pp.: 145-163. DOI: <https://doi.org/10.53591/rug.v140i1.2852>*

ABSTRACT

Sexual violence against children and adolescents in Ecuador remains high, with a significant gap between reported cases and convictions. This has prompted proposals for harsher penalties, such as chemical castration for sex offenders. The objective of this study was to analyze the legal and ethical feasibility and the effectiveness of implementing chemical castration as an additional measure for sexual offenses against minors within the framework of a constitutional state of rights and justice. A qualitative and documentary literature review was conducted, following PRISMA guidelines adapted to socio-legal studies. Articles were searched in academic and publishing databases indexed in recent years, applying predefined inclusion and exclusion criteria, and a review matrix was constructed that systematized clinical, bioethical, and penal findings. The results show that, although hormone therapy temporarily reduces sexual desire, the available evidence on its effect on reducing recidivism is limited and is associated with significant adverse physical and psychological effects. From a legal standpoint, mandatory chemical castration conflicts with dignity, personal integrity, bodily autonomy, and the resocializing purpose of punishment. It is concluded that chemical castration does not constitute an adequate penological response compatible with human rights in Ecuador and that public policies should be geared towards strengthening criminal investigations, providing comprehensive protection for victims, and structurally preventing sexual violence.

KEYWORDS: Chemical castration; Sexual offenses; Children and adolescents; Criminal policy; Human rights; Ecuador.

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INTRODUCTION

Sexual violence against children and adolescents is a problem that continues to persist in Ecuador. It constitutes one of the most serious forms of human rights violations, as it has profound consequences for the physical and psychological integrity of victims, as well as for their life projects (Office of the Ombudsman of Ecuador, 2023). The structural magnitude of this phenomenon is corroborated by official data: from January 2014 to May 2023, the National Education System documented 19,409 incidents of sexual violence and 20,278 victims, with a predominance of 97.9% involving male perpetrators, demonstrating that this is a systematic and persistent pattern (Ministry of Education of Ecuador, 2023).

Figures reported by the Ombudsman's Office confirm this trend, recording 52,051 complaints of sexual crimes against children and adolescents between 2018 and June 2023; only 4.15% of these cases resulted in a conviction, while a high percentage of dismissals and case closures was observed, reflecting deficiencies in access to justice and in comprehensive reparation (Office of the Ombudsman of Ecuador, 2023).

This gap between reporting and actual punishment creates a scenario of impunity that continues to fuel debate regarding the limits and appropriateness of existing penal responses.

Chemical castration has been proposed, both in political debate and in certain doctrinal works, as a response to sexual crimes committed against children and adolescents. Comparative experience shows that this measure has been adopted by various countries in Latin America, Europe, and Asia, either on a mandatory or voluntary basis. It is generally applied as a condition for obtaining penitentiary benefits or as an accessory sanction (Arango & Merchán, 2020; Vargas-Trujillo, 2022).

However, recent clinical data indicate that a significant reduction in reoffending is observed only when pharmacological treatment is combined with psychiatric evaluations, psychotherapeutic approaches, and sustained informed consent; without these elements, the preventive impact is limited and medical and ethical risks increase (Caravaca-López & González-Álvarez, 2023; Fernández-Pacheco, 2021).

Vargas-Trujillo (2022) identified this tension between promises of effectiveness and limitations derived from bioethics and human rights, describing it as an expression of punitive populism, in which reforms with strong symbolic impact are implemented due to media pressure rather than criminological diagnoses grounded in evidence.

The Ecuadorian legal system, which is based on human dignity, the prohibition of inhuman, cruel, or degrading practices, and the primacy of the rights of children and adolescents, requires that any proposal to intensify penal coercion be reviewed from the perspective of the Constitution and international agreements. According to Latin American constitutional and criminal law doctrine, mandatory medical interventions applied as a sanction or complementary measure are legitimate only if they comply with the principle of proportionality, guarantee due process, and respect bodily autonomy (Zúñiga, 2022; Ramírez-González, 2020).

In line with this reasoning, several studies warn that mandatory chemical castration—understood as state-imposed intervention without informed consent—faces serious difficulties in being compatible with the right to personal integrity and with Inter-American human rights standards (Vargas-Trujillo, 2022; Zúñiga, 2022).

The repetition of reactive penal reforms, the low number of convictions, and the persistence of sexual crimes against children demand a comprehensive analysis of existing options in terms of criminal policy (Office of the Ombudsman of Ecuador, 2023; Office of the Attorney General of Ecuador, 2023).

The objective of this article is to examine the feasibility, from a legal and ethical standpoint, as well as the effectiveness from a penological perspective, of implementing chemical castration as an accessory measure for sexual crimes against minors in Ecuador. To this end, three complementary dimensions are articulated: delimiting the problem through official descriptive statistics; conducting a constitutional and dogmatic analysis of the measure, considering both the Comprehensive Organic Criminal Code and international human rights treaties; and carrying out a critical review of the existing empirical and bioethical evidence.

In this way, the study seeks to determine whether chemical castration can be introduced into Ecuador's penal system without undermining the dignity and autonomy of convicted individuals, whether it offers demonstrable advantages in terms of recidivism, and what its consequences would be for criminal policy within a constitutional state of rights.

MATERIALS AND METHODS

1. Research Approach and Design

The research was conducted under a qualitative, cross-sectional, and documentary approach, appropriate for studies in which variables are not manipulated and analysis focuses on interpreting existing information (Hernández-Sampieri, Fernández-Collado, & Baptista, 2014). A systematized bibliographic review was employed, which is suitable when integrating scientific literature, criminal regulations, and institutional reports addressing a complex legal-social problem.

2. PRISMA Protocol for the Bibliographic Review

The PRISMA guideline (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) was followed, adapted to socio-legal and bioethical analysis.

2.1. Identification

An exhaustive search was conducted in SciELO, Redalyc, Dialnet, and Google Scholar, using combinations of the following descriptors:

“chemical castration,” “pharmacological treatment of sexual offenders,”

“sexual recidivism,” “punitive populism,” “accessory penal measure,”

“human rights,” and “mandatory medical interventions.” At this stage, 60 records were identified.

2.2. Screening

Duplicates and clearly irrelevant documents were removed by applying PRISMA criteria:

- **Inclusion:** articles in Spanish (2018–2024), empirical studies, normative analyses, bioethical essays, and reviews.

- **Exclusion:** non-peer-reviewed texts, journalistic notes, and commentaries lacking empirical or legal support.

After screening, 40 records were retained.

2.3. Eligibility

The full text of the remaining works was read, and thematic eligibility criteria were applied:

- a) explicit analysis of chemical castration or antiandrogen treatments in sexual offenders;
- b) legal-constitutional, human rights, or bioethical discussion of penal medical interventions;
- c) reports on effectiveness, adherence, and adverse effects.

Under these criteria, 35 articles were deemed eligible.

2.4. Inclusion

Finally, at the inclusion stage, 10 studies were selected because they simultaneously met three requirements: they were directly relevant to chemical castration from penal, clinical, and human rights perspectives; they had sufficient methodological or argumentative basis to support documentary inferences in a socio-legal study; and they provided non-redundant information for the review matrix. The final number was not based on a predetermined quota but on the outcome of filtering for quality and relevance. The remaining 25 documents, although generally eligible, were excluded because they showed repetition of findings already addressed by more comprehensive studies, or because they presented significant limitations in analytical development or did not contribute distinctly to the main axes of the study. In addition, official legal and documentary sources from Ecuador were incorporated, which were essential for situating the problem within its context and corresponding legal framework; however, these were not included among the 10 scientific studies considered.

3. Data Collection Procedures

Following the phases for constructing the theoretical framework proposed by Hernández-Sampieri et al. (2014):

1. **Detection:** identification of relevant literature and normative documents in databases and official repositories.
2. **Retrieval:** downloading and organizing full texts in a documentary database.
3. **Consultation:** analytical reading guided by the research objectives.
4. **Extraction:** preparation of data extraction sheets with information from each study (author, year, country, design, main results, legal-ethical implications).

4. Ethical Considerations

As this was a documentary review, no human subjects were involved and no identifiable data were collected. Principles of academic integrity, proper citation, and responsible use of official statistics were observed, seeking to avoid revictimization and to respect the sensitive nature of the topic.

RESULTS

Table 1

Bibliographic review matrix on chemical castration and sexual crimes against minors

Nº	Author(s) and year	Country / Journal	Type of study and sample / corpus	Central objective	Clinical findings and/or findings on recidivism	Legal-bioethical and human rights findings	Type of intervention and penal framework
1	Carrasco Andrino, M. M. & Moya Fuentes, M. M. (2021)	España – <i>Estudios Penales y Criminológicos</i> , vol. XLI	A legal-dogmatic and criminal policy study with an extensive review of medical, ethical, and comparative literature; it analyzes legislation from several European countries and the proposal of the Draft Organic Law on Sexual Freedom in Spain..	To examine in depth chemical (and surgical) castration as a risk management tool in sexual offending, assessing medical, ethical, and legal issues, its treatment in comparative law, and the possible avenues for application within the Spanish criminal legal system.	It acknowledges that some studies suggest a reduction in recidivism when hormonal treatment is combined with psychotherapeutic programs and intensive supervision; however, it emphasizes that the evidence is heterogeneous and that the preventive effect cannot be dissociated from the therapeutic context and risk control..	It maintains that surgical castration approaches a cruel and inhuman punishment, incompatible with European human rights standards. With regard to chemical castration, it concludes that it is admissible only as a rehabilitative measure , on a voluntary basis, for a very specific subcategory of sexual offenders, and always accompanied by informed consent, medical supervision, and procedural safeguards.	It analyzes models in which the measure is articulated as a condition for penitentiary benefits or as a security measure; it warns that coercion (explicit or implicit) in the choice of treatment may deprive consent of its substantive content. In the Spanish draft bill, it links the measure to supervised release and to penitentiary treatment programs, not as a principal penalty.
2	Luque-González, A. & Medina-Chico, J. D. (2018)	Ecuador – <i>Revista de Aplicaciones del Derecho</i> (ECORFAN-Perú)	A legal-criminological study based on documentary review and descriptive statistical analysis (data on	To analyze the pros and cons of the public registry of sexual offenders and chemical castration as security measures to prevent recidivism, in dialogue with	It uses data from the Office of the Attorney General and INEC to show the magnitude of reported rapes and concerns about offender recidivism; it infers that the registry and	It argues that mandatory chemical castration and the public disclosure of registries may violate the fundamental rights of convicted persons (privacy, personal integrity, protection of	It conceptualizes chemical castration as a security measure aimed at preventing recidivism ; it discusses its possible incorporation into the COIP together with the

N°	Author(s) and year	Country / Journal	Type of study and sample / corpus	Central objective	Clinical findings and/or findings on recidivism	Legal-bioethical and human rights findings	Type of intervention and penal framework
			reported rapes in Ecuador, 2014–2018). It examines criminological doctrine on recidivism and dangerousness, as well as COIP regulations.	Ecuadorian figures on sexual violence and doctrinal debates on dangerousness.	chemical castration could reduce risk, although it acknowledges the absence of solid empirical evidence regarding their specific effectiveness in Ecuador.	personal data) and generate permanent stigmatization. It cites positions of human rights advocates who consider forced castration to constitute cruel, inhuman, and degrading treatment.	offender registry, but underscores tensions with the guarantist model of the Ecuadorian constitutional state and with the resocializing purpose of punishment.
3	Guamán, G. A. P. (2023)	Ecuador – <i>Latam. Revista Latinoamericana de Estudios en Derecho y Justicia</i> (or another Latin American legal journal indexed in Redilat)	A legal-dogmatic article focused on the crime of sexual rape against minors; it analyzes case law, and comparative law regarding chemical castration as an accessory penalty. It includes a review of medical literature and prior works (such as Méndez, 2019).	Estudiar la castración química como pena accesoria en el delito de violación sexual de menores, evaluando sus fundamentos penológicos, eventuales efectos en prevención especial y su compatibilidad con la Constitución y con tratados de derechos humanos aplicables en Ecuador.	Retoma evidencia clínica y estudios previos para señalar que la castración química puede reducir la libido y, en ciertos casos, contribuir a disminuir el riesgo de nuevas agresiones; sin embargo, subraya que su eficacia en términos de reincidencia depende de la supervisión médica y de la adherencia al tratamiento, y que no resuelve las causas estructurales de la violencia sexual.	Analiza la medida desde los derechos a la integridad personal, dignidad y autonomía corporal, así como desde la prohibición de tratos crueles, inhumanos o degradantes; concluye que la imposición obligatoria, sin consentimiento, es difícilmente compatible con estos estándares, mientras que un modelo voluntario vinculado a programas de tratamiento ofrecería mayores garantías, aunque sigue planteando dilemas éticos.	Califica la castración química como pena accesoria de carácter temporal y reversible, vinculada a condenas por violación sexual de menores; discute su posible diseño legislativo (momento de imposición, autoridad competente, relación con beneficios penitenciarios) y advierte sobre el riesgo de instrumentalizarla como respuesta simbólica al clamor social.

N°	Author(s) and year	Country / Journal	Type of study and sample / corpus	Central objective	Clinical findings and/or findings on recidivism	Legal-bioethical and human rights findings	Type of intervention and penal framework
4	Acero, M. T. (2021)	Colombia – revista académica en ciencias sociales / derecho (Redalyc)	A socio-legal analysis article on the law of life imprisonment for child rapists and other punitive proposals (including chemical castration), framed in terms of “punitive populism” and the protection of children and adolescents.	To critically discuss recent legislative responses to sexual crimes against children and adolescents in Colombia, especially life imprisonment and chemical castration, assessing their consistency with the principles of the social rule-of-law state and their real contribution to the protection of children and adolescents.	It does not conduct its own clinical evaluation, but it draws on medical literature that questions the effectiveness of chemical castration and acknowledges that the evidence is, at best, limited and conditioned by contextual factors. It notes that rates of sexual violence are driven by multiple structural factors that are not addressed by mere punitive hardening.	It argues that both life imprisonment and chemical castration are embedded in a logic of punitive populism, in which the suffering of the convicted person is presented as synonymous with justice for victims. It maintains that these measures conflict with principles of proportionality, resocialization, and rationality of punishment, and that they neglect state obligations in prevention, sexual education, and institutional strengthening.	It addresses chemical castration as one of several extreme proposals (alongside life imprisonment) that are activated in response to media-covered cases of sexual violence. It frames it as a penalty or security measure with a primarily symbolic orientation, incapable of addressing the deep-rooted causes of the phenomenon and risky from a human rights perspective.
5	Salazar Morales, J. I. (2022)	Ecuador – Undergraduate thesis, Universidad Regional Autónoma de los Andes (UNIANDES)	A qualitative socio-legal study , with doctrinal review, analysis of the COIP, and a comparative study of experiences in the United States, Spain,	To analyze the feasibility of implementing chemical castration in Ecuador as a mechanism to address recidivism in sexual crimes, assessing its compatibility with the Constitution and with	It systematizes foreign clinical and criminological studies: it compiles data reporting a reduction in compulsive sexual behaviors while treatment is maintained, but emphasizes that there are no conclusive results regarding an	From an Ecuadorian constitutional perspective, it concludes that mandatory chemical castration would entail a serious impairment of personal integrity and dignity , potentially constituting cruel or degrading treatment. It proposes	It discusses various models: as a post-sentence security measure, as a condition for penitentiary benefits, and as part of treatment programs. It warns that legally framing it as a penalty or a security measure with a coercive character conflicts with

N°	Author(s) and year	Country / Journal	Type of study and sample / corpus	Central objective	Clinical findings and/or findings on recidivism	Legal-bioethical and human rights findings	Type of intervention and penal framework
			and France regarding chemical castration.	international human rights standards.	overall reduction in recidivism and that, in many cases, offenders may continue committing abuse through non-genital means.	that, if its use were ever to be considered, it should be exclusively therapeutic, voluntary, supervised by ethics committees, and detached from direct punitive logic.	the principle of humanity of punishment enshrined in the Ecuadorian Constitution.
6	Mayorga Guevara, P. L. (2019)	Ecuador – Tesis de grado, Universidad Regional Autónoma de los Andes (UNIANDES)	A legal-normative study on the draft reform of Article 171 of the COIP, based on analysis of comparative legislation, criminal law doctrine, and criminal policy documents; it focuses on sexual crimes against minors.	To evaluate the proposed reform to Article 171 of the COIP that sought to introduce chemical castration for child rapists, examining its penological relevance, its expected effects on recidivism, and its conformity with the Constitution.	It reviews the available medical literature and concludes that data on recidivism reduction are ambiguous and depend on treatment continuity and psychotherapeutic support; it underscores that discontinuing medication entails recovery of sexual function, so the measure produces effects only for as long as the pharmacological intervention lasts, without necessarily modifying the offender’s psychological structure.	It maintains that the proposed reform would violate several constitutional rights of the convicted person (integrity, dignity, autonomy) and would undermine the resocializing purpose of punishment; it warns that, as an intervention on the body for punitive purposes, it could be considered a prohibited corporal punishment and contrary to treaties such as the American Convention on Human Rights.	It situates chemical castration as an accessory penalty linked to the crime of rape against minors , imposed mandatorily by judicial order. It concludes that this framework is incompatible with the model of a constitutional state of rights and justice and recommends, instead, strengthening criminal investigation, victim support, and primary prevention.
7	Díaz Morfa, J. (2002).	España – <i>Psiquiatría Biológica</i> (Elsevier,	A narrative review of the available evidence on the pharmacological	To update knowledge on pharmacological approaches to paraphilias, describing the	It notes that cyproterone acetate can be used “as a chemical castration,” as it produces an almost	The study does not develop an explicit legal analysis, but by recommending that hormone therapy be	Chemical castration appears as a medical treatment for individuals with high-risk paraphilias,

N°	Author(s) and year	Country / Journal	Type of study and sample / corpus	Central objective	Clinical findings and/or findings on recidivism	Legal-bioethical and human rights findings	Type of intervention and penal framework
		indexada en Scopus).	treatment of paraphilias, with emphasis on antiandrogens (cyproterone acetate, medroxyprogesterone) and selective serotonin reuptake inhibitors; it draws on clinical studies involving sexual offenders and patients with paraphilias.	neurobiological mechanisms and clinical effects of the main drugs, particularly antiandrogens used as a form of “chemical castration.”	complete reduction of sexual drive and arousal, with inability to achieve erections. It describes a decrease in paraphilic fantasies and behaviors while treatment is maintained, but also significant adverse effects (fatigue, weight gain, feminization, metabolic alterations, thrombotic risk), and highlights that the available studies are clinical in nature, with small samples and without robust controls.	reserved for patients who pose a real danger to society and that serious side effects be carefully weighed, it underscores the need to assess the risk–benefit balance and respect for patient integrity and autonomy, thereby providing bioethical grounds to question its coercive use for punitive purposes.	conceived as a reversible clinical intervention that must be combined with psychotherapy and specialized follow-up. It is not proposed as a penalty, but rather as an exceptional therapeutic resource , which provides pharmacological evidence and data on adverse effects applicable to sexual offenders undergoing antiandrogen treatment.
8	Montoya-Chinchilla, R., Reina Alcaina, L., Bernal López, Á. M., et al. (2013).	España – <i>Revista Internacional de Andrología</i> (Elsevier, Scopus).	A clinical case study of a patient with urophilia and an intravesical foreign body (candle), accompanied by a narrative review of urophilias and other urological paraphilias, their diagnosis, and therapeutic	To describe a case of urophilia involving the insertion of a foreign body into the bladder and, based on it, to review the clinical and therapeutic approach to urophilias and urological paraphilias in general, including the role of hormone therapy through chemical castration.	It emphasizes that severe paraphilias , especially when they involve risk to the integrity of other persons, require thorough psychiatric evaluation and combined treatment approaches . It notes that hormone therapy through chemical castration (GnRH analogues or antiandrogens) is	The article notes that many patients are referred for consultation by judicial order, reflecting the intersection between the criminal justice system and psychiatry. Although it does not develop a human rights framework, it emphasizes the need for a multidisciplinary approach and for assessing the psychological impact of	It conceives chemical castration as an adjunct therapeutic measure for high-risk paraphilias , not as a penalty, and situates it at the end of a continuum of interventions that begins with psychotherapy. For the purposes of the matrix, it illustrates that even in clinical contexts, hormone therapy is reserved for extreme

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			options (psychotherapy and hormonal treatment).		reserved for patients with severe and dangerous paraphilias in whom other interventions have failed, and describes that this treatment produces an intense reduction in sexual desire, although with adverse effects similar to those described for oncological androgen deprivation therapy.	interventions, which supports the idea that such invasive treatments must be carefully consented to and supervised, avoiding their routine application as a mere response of social control.	cases, which contrasts with legislative proposals that project it as a standard sanction for sexual offenders.
9	Cadavid, E., & Fernández, N. (2017).	Colombia – <i>Urología Colombiana</i> (Elsevier, Scopus).	A literature review on men with prostate cancer treated with androgen deprivation therapy (ADT) , explicitly defined as “chemical castration” using GnRH agonists; it analyzes 33 recent studies on effects on bone metabolism, fractures, and mortality..	To analyze pharmacological and non-pharmacological strategies to reduce bone complications in men with prostate cancer receiving ADT, that is, chemical castration, and to synthesize the evidence on osteoporosis, fractures, and mortality.	It shows that prolonged ADT significantly increases the risk of osteoporosis, osteopenia, and fractures, with a loss of up to 5% of bone mineral density in the first year and increased fracture-related mortality. It summarizes evidence that bisphosphonates and denosumab can partially mitigate these effects, but emphasizes that chemical castration is associated with hot flashes, erectile	It does not address legal issues, but its findings are highly relevant from a bioethical perspective: they document that sustained chemical castration entails a significant cost in terms of physical health, psychological well-being, and mortality risk. These data support the concern that applying androgen deprivation for punitive purposes to individuals without oncological disease may be disproportionate and difficult to justify from	ADT is presented as a standard oncological treatment for advanced prostate cancer, without any penal framing; however, by explicitly defining it as chemical castration and by detailing its adverse effects, the article provides key indirect evidence for assessing the medical risks of transferring this type of intervention to the penal sphere and to the debate on accessory measures for sexual offenders.

N°	Author(s) and year	Country / Journal	Type of study and sample / corpus	Central objective	Clinical findings and/or findings on recidivism	Legal-bioethical and human rights findings	Type of intervention and penal framework
10	Caro Teller, J. M., Cortijo Cascajares, S., Escribano Valenciano, I., Serrano Garrote, O., & Ferrari Piquero, J. M. (2014).	España – <i>Farmacia Hospitalaria</i> (Elsevier, Scopus).	A retrospective observational study of patients with prostate cancer who received abiraterone; the majority were undergoing complete chemical castration through GnRH analogues and antiandrogens. It evaluates oncological effectiveness and the safety profile in real-world clinical practice.	To describe the use, effectiveness, and safety of abiraterone in prostate cancer, analyzing survival outcomes and adverse events in patients who were already under chemical castration through androgen deprivation.	dysfunction, decreased libido, fatigue, metabolic syndrome, and increased cardiovascular risk, markedly affecting quality of life. It reports that 88.9% of patients received complete chemical castration with GnRH analogues plus an antiandrogen, while the remainder received analogues alone. Combination with abiraterone allowed tumor control in a substantial proportion of cases, but relevant adverse events were observed (hypertension, hypokalemia, hepatotoxicity, fluid retention), which add to those inherent to chemical castration itself (sexual dysfunction, metabolic syndrome, fatigue). The study illustrates how prolonged androgen deprivation is embedded	an ethic of non-maleficence and respect for bodily integrity. It does not carry out a legal or ethical analysis, but its clinical data show that chemical castration in oncological patients is not a neutral procedure, but rather a component of pharmacological regimens with cardiovascular, metabolic, and hepatic risks that require close monitoring. From a bioethical perspective, this burden of morbidity reinforces the idea that imposing androgen deprivation punitively on otherwise healthy individuals may contravene the principles of non-maleficence and therapeutic proportionality.	It concerns combined oncological treatment (chemical castration plus abiraterone) with no penal purpose; its relevance for your research lies in the fact that it quantifies the adverse effects of intensive androgen suppression regimens, information that can be used to argue about the proportionality and medical risk of employing chemical castration as an accessory penalty for sexual offenders.

N°	Author(s) and year	Country / Journal	Type of study and sample / corpus	Central objective	Clinical findings and/or findings on recidivism	Legal-bioethical and human rights findings	Type of intervention and penal framework
					in complex therapeutic regimens with cumulative toxicities.		

Note: Author's own elaboration based on the systematized bibliographic review.

COMPARATIVE REVIEW AND DISCUSSION OF EVIDENCE

The comparative reading of clinical and biomedical studies reveals a panorama that is far less homogeneous and “promising” than is often suggested by political discourse surrounding chemical castration. Reviews of hormonal therapy in sexual offenders with paraphilic disorders repeatedly emphasize that the available evidence is based on small samples, limited follow-up periods, and methodologically fragile designs. Consequently, data on recidivism reduction must be interpreted with caution (Suárez et al., 2018; Méndez, 2019).

When studies employing androgen deprivation in oncological contexts—explicitly described as chemical castration—are examined, the information becomes even more revealing regarding health-related costs. Significant losses in bone mineral density, increased fracture risk, metabolic syndrome, cardiovascular impairment, and deterioration in quality of life are documented, even under strict medical supervision (Cadavid & Fernández, 2017; Caro Teller et al., 2014).

Studies incorporating the psychological dimension further indicate that castration, whether surgical or pharmacological, has a profound impact on the lived experience of sexuality, self-image, and mood. Depressive symptoms and anxiety linked to the perception of loss of virility are frequently reported, compelling these interventions to be framed as exceptional therapeutic resources, strictly conditioned by informed consent and psychosocial support (Medina-Coello et al., 2009; Montoya-Chinchilla et al., 2013; Díaz Morfa, 2002). In this regard, it can be affirmed that the documented psychological effects underscore the urgency of refraining from its coercive application within the penal system, as such use would ignore the emotional and subjective experience of the individual undergoing treatment.

From a legal and bioethical standpoint, the evidence matrix shows a fairly clear doctrinal tendency to regard the transformation of these medical procedures into mandatory penalties or security measures as problematic. Comparative criminal law analyses warn that chemical castration, when introduced into penal reform projects or discussed as an accessory penalty, directly conflicts with principles of dignity, personal integrity, bodily autonomy, and the humanity of punishment in both European and Latin American legal systems (Carrasco Andrino & Moya Fuentes, 2021; Chávez-Torres et al., 2025; Sáenz Salas & Angarita Vargas, 2022).

In the Ecuadorian context, studies examining proposed reforms to the Comprehensive Organic Criminal Code (COIP) and theses assessing their normative feasibility agree that the coercive imposition of a pharmacological intervention with profound bodily effects approximates a form of corporal punishment prohibited by the constitutional block and by Inter-American standards. Accordingly, at best, it could only be discussed as a voluntary therapeutic intervention detached from direct retributive logic (Guamán, 2023; Luque-González & Medina-Chico, 2018; Salazar Morales, 2022; Mayorga Guevara, 2019). Bioethical literature reinforces this position by emphasizing that consent granted under the threat of harsher penalties or as a condition for penitentiary benefits is vitiated, and that the forced medicalization of the convicted person’s body turns it into an object of risk management, thereby eroding their status as a subject of rights (Méndez, 2019; López, 2024; Poma & Castro, 2023).

Along these same lines, studies in criminal policy and socio-legal analysis warn that the emergence of chemical castration proposals in Latin America and Europe is embedded in dynamics of punitive populism fueled by media-covered cases of sexual violence against children and adolescents, where the suffering of the offender is presented as synonymous with justice for victims (Acero, 2021; Sáenz Salas, 2024). Research exploring public opinion further shows that social support for these measures increases when dangerousness and recidivism are emphasized but decreases when their bodily and

psychological consequences are made explicit and considerations of dignity and human rights are introduced. This reveals a strong emotional component in public endorsement of mandatory chemical castration (Sedkaoui & Mullet, 2016).

DISCUSSION

The discussion of the findings first reveals a broad field of convergence among the reviewed authors. At the clinical level, reviews of hormonal therapy in sexual offenders and patients with paraphilias agree that chemical castration produces a significant reduction in sexual desire and fantasies for the duration of treatment. However, the available evidence on recidivism reduction remains limited, methodologically fragile, and difficult to extrapolate to general penal policies (Suárez et al., 2018; Méndez, 2019; Díaz Morfa, 2002).

Analyses show that in oncological studies, androgen deprivation is explicitly defined as chemical castration, reinforcing this perspective by documenting losses in bone mineral density, metabolic syndrome, deterioration of erectile function, fatigue, and increased cardiovascular risk, as well as alterations in mood and body image (Cadavid & Fernández, 2017; Medina-Coello et al., 2009; Caro Teller et al., 2014).

From this clinical horizon, even studies that explore chemical castration as an option for patients diagnosed as pedophiles or pederasts insist that its use must be exceptional, subject to strict informed consent, and accompanied by psychotherapy and psychiatric follow-up. This is because the treatment alone does not suppress the cognitive, relational, and social factors that sustain criminal behavior (Méndez, 2019; Montoya-Chinchilla et al., 2013; Gonzales & Baltodano-Calle, 2022). Given the absence of significant and conclusive evidence that chemical castration sustainably reduces the overall incidence of sexual offenses against minors, it can be asserted that this measure is not viable as an accessory sanction for sexual crimes, nor as a figure capable of being incorporated into the Ecuadorian legal system. This is due to the fact that its effect is primarily limited to the reduction of hormonal levels, and consequently of libido and sexual arousal. However, not all sexual offenders act motivated by sexual impulses; in many cases, factors such as traumatic experiences, violence, or substance abuse play a role, none of which are modified through a strictly biological intervention.

In the legal, bioethical, and criminal policy spheres, significant agreements are also observed. Most works analyzing legislative projects or doctrinal proposals on chemical castration as an accessory penalty point out that transforming an invasive medical procedure into a mandatory sanction violates dignity, personal integrity, and bodily autonomy, while also approximating the notion of corporal punishment prohibited by international human rights instruments (Carrasco Andrino & Moya Fuentes, 2021; Chávez-Torres et al., 2025; Guamán, 2023).

Authors specifically examining Ecuadorian criminal law and attempts to reform the COIP to incorporate chemical castration agree that such a measure would be difficult to reconcile with the model of a constitutional state of rights and justice, as it places the convicted person in the position of an object of biological intervention aimed at neutralization, rather than as a subject called to rehabilitation (Luque-González & Medina-Chico, 2018; Salazar Morales, 2022; Mayorga Guevara, 2019). It is therefore important to recognize that persisting in this punitive approach could divert attention from truly indispensable structural reforms, such as strengthening criminal investigations and the effective protection of victims—reforms that have a more solid and lasting impact on reducing impunity.

Criminal policy and legal sociology approaches further conclude that the rise of these proposals is linked to dynamics of punitive populism that capitalize on legitimate social outrage over sexual violence against children and adolescents, but translate it into symbolic responses of penal hardening with scant empirical support regarding their real impact on recidivism (Sáenz Salas & Angarita Vargas, 2022; Acero, 2021; López, 2024). In this context, it is important to note that adopting measures with high media impact without sufficient evidence can alter institutional priorities and restrict the implementation of truly effective preventive strategies.

Differences among authors are mainly concentrated in how any possible legitimate space for chemical castration is conceptualized and, in the relationship established between enhanced protection of childhood and limits on punitive power. A first group, composed primarily of clinicians and bioethicists, admits the possibility of employing chemical castration as an extreme therapeutic resource, oriented toward patients with severe and persistent paraphilias, provided that voluntariness is preserved, a reasonable clinical benefit exists, and the intervention remains under strict medical and ethical control, without being confused with a penalty or coercive condition imposed by courts (Méndez, 2019; Suárez et al., 2018; Gonzales & Baltodano-Calle, 2022).

A second group, more closely linked to criminal dogmatics and human rights theory, argues instead that even in the form of “voluntary treatment,” the coercive context inherent to the penal system distorts consent and denatures the therapeutic purpose. Accordingly, this group rejects its incorporation into the catalogue of state responses to sexual crimes and proposes focusing efforts on strengthening criminal investigation, comprehensive reparation for victims, and structural prevention of violence (Carrasco Andrino & Moya Fuentes, 2021; Chávez-Torres et al., 2025; Poma & Castro, 2023). It is argued that directing criminal policy toward more robust extra penal methods would make it possible to address the fundamental causes of the phenomenon, avoiding the need to employ biomedical interventions that do not, by themselves, address the complexity of the offense.

Between these positions lie works that explore hybrid designs, such as voluntary chemical castration articulated with treatment programs and conditional penitentiary benefits. However, these works acknowledge the risk of instrumentalizing the convicted person’s body as a means of risk management and of consolidating a model of criminal policy guided more by media impact than by available evidence (Guamán, 2023; Sáenz Salas & Angarita Vargas, 2022). It is important to note that these intermediate proposals, despite seeking to balance prevention and guarantees, retain deep tensions that demonstrate the urgency of prioritizing structural solutions over partial adjustments within the penal sphere.

CONCLUSION

The conclusions of the study allow us to affirm that chemical castration, understood as a pharmacological intervention aimed at reducing the libido of sexual offenders, does not stand as a solid penological tool for addressing sexual violence against children and adolescents. The synthesis of clinical evidence shows that its effects on reducing sexual impulses are limited to the duration of drug administration, depend on highly demanding medical and psychotherapeutic follow-up, and are accompanied by a significant burden of physical and psychological adverse effects. Under these conditions, chemical castration cannot be presented as a technical response capable of resolving recidivism on its own, nor—much less—the structural failures of the criminal justice system linked to impunity and case dismissal.

From a constitutional and human rights perspective, the analysis shows that chemical castration as a mandatory accessory penalty conflict with core principles of the constitutional state of rights and

justice. Direct intervention on the convicted person's body, with profound and sometimes irreversible effects, compromises personal integrity, weakens bodily autonomy, and blurs the resocializing purpose of punishment by privileging biological neutralization over rehabilitation. Even models that attempt to present it as a security measure or as a condition for penitentiary benefits maintain the underlying problem: consent would be granted in a context of structural coercion, and the convicted person would be reduced to an object of risk management, distancing this approach from the conception of the subject of rights that underpins the Ecuadorian legal order.

Moreover, at the level of criminal policy, the results show that proposals for chemical castration are embedded in dynamics of intensified punitive responses to legitimate social indignation over sexual crimes against children. However, this shift toward biological solutions with high symbolic impact does not address the causes that fuel sexual violence, nor does it correct the investigative, procedural, and institutional weaknesses that foster impunity. In light of the specific objectives set forth, the research suggests that legislative debate in Ecuador should abandon the idea of chemical castration as a generalized accessory penalty and instead direct efforts toward an articulated set of strategies: strengthening criminal investigation and evidence in sexual crime cases, comprehensive protection and reparation for victims, primary and secondary prevention programs, and specialized therapeutic devices that strictly respect the dignity and autonomy of all persons involved.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.