

SEXUAL ASSAULTS IN MINORS: EXPERIENCE OF THE FORENSIC EMERGENCIES UNIT OF FORENSIC MEDICINE DEPARTMENT OF MUSTAPHA UNIVERSITY CENTER OF ALGIERS

D._AZZOUZ* , BENYAGOUB. M , BELHADJ. R***

*Forensic Medicine Department, Mustapha Pacha Hospital, faculty of medicine of Algiers

** Forensic Medicine Department, Hmida Benadjila Hospital, faculty of medicine of Laghouat

Abstract:

Research on sexual violence in forensic medicine is complex due to its taboo nature and the difficulty in reporting, particularly when minors are the victims. The objective of this work is to clarify the importance of a forensic emergencies unit where victims of sexual assaults are treated. Additionally, it aims to study the epidemiological and medico-legal aspects of sexual assaults in minors. Sexual assaults encompass a wide range of acts with varying natures and intensities. While certain forms of sexual abuse, particularly those involving minors, may not always result in immediate physical harm, the emotional and psychological impact is significant. Therefore, victims should be promptly referred to specialized units such as the forensic emergencies unit.

Keywords: sexual assault - minors - forensic emergencies unit.

I. INTRODUCTION :

Research on sexual violence in forensic medicine is complex because this type of violence remains a taboo subject and is difficult to report, especially when it involves minors (Denial and taboo) [1,2,3].

Given these constraints contributing to underreporting, how can we effectively assess sexual violence?

Regardless of media coverage, how can we become aware of cases of sexual violence? Are the increases in reported cases indicative of a real rise in incidents, or are they primarily due to more frequent complaints and reporting? [4].

From a theoretical perspective, sexual violence against minors deserves special consideration due to its unique signs and societal impact.

The media attention underscores the significant societal impact and awareness of sexual violence against minors.

The forensic emergencies unit at the Forensic Medicine Department of CHU Mustapha serves the following purposes:

Timely and proper care for individuals who are victims of sexual violence (clinical examination, biological samples, and initiation of necessary treatments, as well as follow-up consultations with a psychologist for post-sexual assault care).

The production of medico-legal documents that play a crucial role in the legal process (submitted to investigating authorities and the Prosecutor's Office. These documents are significant during legal proceedings, particularly in matters of causality and lesion attribution).

The objectives of our work are as follows:

Describe different types of sexual violence against minors.

Describe the medico-legal care of a minor who is a victim of sexual violence at the forensic emergencies unit - CHU Mustapha.

Compile an epidemiological profile of minors who were victims of sexual assaults at the forensic emergencies unit - CHU Mustapha during the year 2020.

DEFINITIONS AND LEGAL FOUNDATIONS :

1. DEFINITION OF SEXUAL VIOLENCE

The World Health Organization (WHO) defines sexual violence as "any sexual act, attempt to obtain a sexual act, sexual comment or advance, or acts directed against a person's sexuality using coercion, committed by a person independently of their relationship with the victim, in any context, including but not limited to, the home and workplace" [5].

The Committee on the Rights of the Child - OHCHR (2011): "any act of violence, harm, cruelty, ill-treatment, or exploitation, including sexual violence as stated in paragraph 1 of Article 19 of the convention" [6].

The committee, in General Comment No. 13, outlines various forms of sexual violence, particularly:

Encouraging or compelling a child to engage in illegal or psychologically harmful sexual activities.

Using a child for commercial sexual exploitation.

Using children in sound or visual representations of sexual violence against children.

Child prostitution, sexual slavery, sexual exploitation in travel and tourism, trafficking, and the sale of children for sexual purposes, and forced marriage.

For the WHO, sexual violence primarily involves "any sexual act committed against a victim by a person, whether close or distant, who uses force and coercion to obtain it. It also includes acts attempted by a person using sexual comments, advances, or acts aimed at sexual trafficking" [5].

2. LEGAL PROTECTION OF MINORS VICTIMS OF SEXUAL ASSAULT IN ALGERIA:

Internationally, Algeria has ratified and adopted all conventions, declarations, and international treaties related to children's rights.

Algeria has a legal framework to address sexual violence.

The Algerian Penal Code categorizes offenses committed against minors under the age of 16. Algerian legislation uses the terms "minors" and varies the age of minors between 16, 18, and 19 years.

In its chapter on "Crimes and Offenses against the Family and Good Morals," the Algerian Penal Code uses terms like "outrage to public decency" (unnatural acts with an individual of the same sex or otherwise), "indecent assault," "enticement of minors to debauchery," and "rape" without providing specific definitions. The amendments made to the Penal Code in 2014 did not introduce new terminology or definitions but did incorporate the expression "sexual violence."

The Penal Code, therefore, lists crimes and offenses against the family and good morals in its Chapter II. Section 6 is titled "offenses against morals," and the offenses listed in its Articles 333 and subsequent are considered misdemeanors, with only rape being criminalized.

The law on the protection of children (Law No. 15-12 of July 15, 2015, relating to the protection of children) aims to define the rules and mechanisms for child protection [7].

In Article 2:

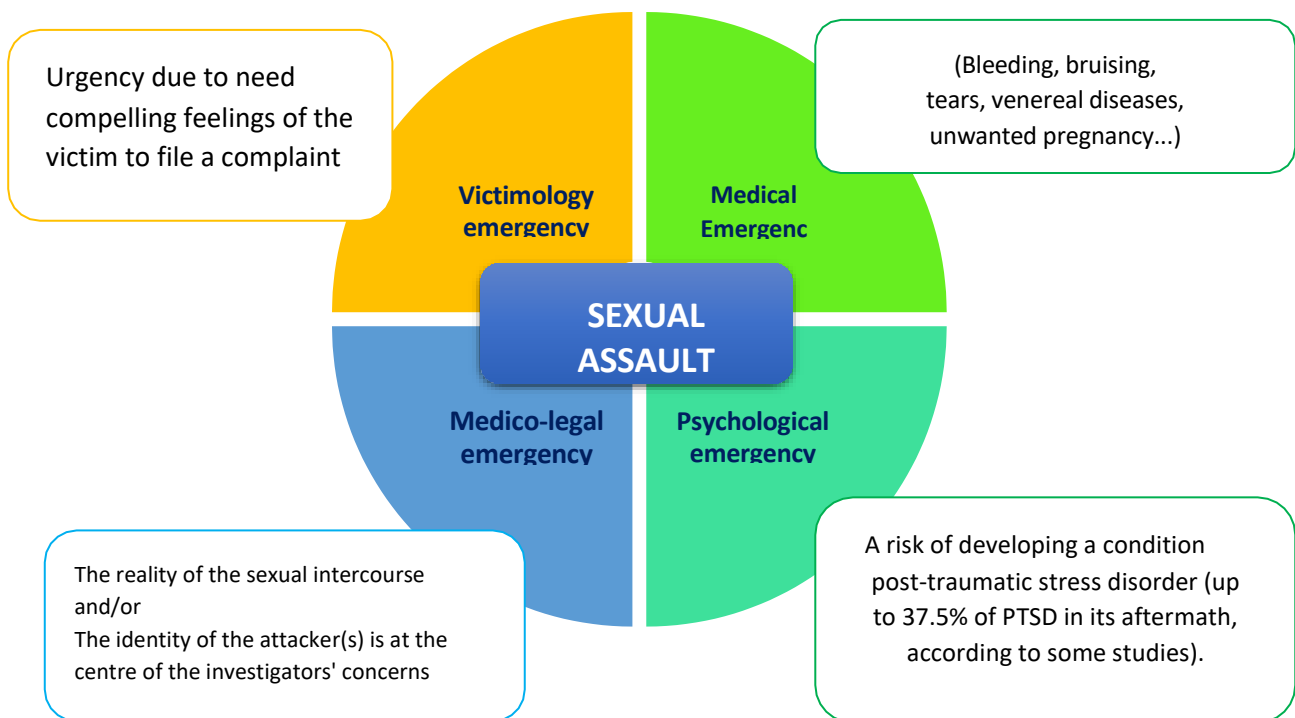
It defines a child.

It includes child sexual exploitation in all its forms (pornography, debauchery, and sexual exposure).

The legislature considers child sexual exploitation in all its forms to be a

situation exposing the child to danger.

MEDICO-LEGAL MANAGEMENT OF SEXUAL ASSAULTS AT THE FORENSIC EMERGENCIES UNIT - CHU MUSTAPHA:



A. Medico-Legal Issues in Child Sexual Assaults:

1. Identification of Objective Elements of Child Sexual Violence:

Physical signs are rare.

- DNA is much less frequently useful than in adults.
- It is often very difficult to confirm or refute penetration of the vagina or anus by a finger.

2. Reporting to Authorities:

Given the criminal severity of such acts, their impact on the reputation and life of the suspect, and the danger faced by the minor victim if no action is taken, the crucial question of reporting to the authorities arises. This is reflected in:

Law No. 18-11 of July 2, 2018, concerning health, specifically Article 198 in Chapter 6, "Medico-Legal Practice," which obliges healthcare professionals to inform the relevant authorities of the violence suffered, especially by children and adolescent minors, that they become aware of [8].

The Penal Code [9]:

Art. 181: mandates anyone who becomes aware of an attempted or committed crime to alert the authorities.

Art. 183: prosecutes anyone for failing to assist a person in danger.

The law on child protection, adopted in June 2015, allows for reporting regarding violations of children's rights to be made to:

Juvenile Judge: by the child themselves (Article 32).

National Delegate for Child Protection: by the child's legal guardian or any natural or legal person (Article 15).

The prevalence survey reveals that victims do not speak or speak very little

about what happens to them; they confide in neighbors, cousins, and only one out of ten has spoken to their mother. A mother, failing to file a complaint, may help conceal sexual violence or its consequences (such as pregnancy) [4].

3. Value of the Testimony of the Minor (Child):

The concept of whether the minor is credible, crucial in many trials involving sexual violence against minors, has not undergone scientific evaluation.

The law on child protection, in Article 46, provides for audiovisual recording during the investigation and the questioning of child victims of sexual assault in the presence of a psychologist. The aim of this interview is to minimize the number of interviews, ensuring they are not repetitive and traumatizing for the child.

4. Instrumentalization of Child Sexual Abuse in Divorce Proceedings:

The instrumentalization of child sexual abuse in contentious divorce proceedings is common.

An examination of a child after a visit to one of the parents has become a "common" practice in our forensic emergencies unit, with mothers accusing ex-husbands and fathers accusing stepfathers, and so on.

The risk lies in becoming less vigilant because indisputable cases of child sexual abuse are not entirely ruled out in such situations.

B. Care for Victims of Sexual Assault in the Emergency Department (?) but not in the

"emergencies" except at forensic emergencies unit's:

In contemplating the care for sexual violence in traditional medical-surgical emergency departments, the following issues are noted:

- Reception in unsuitable facilities.
- Inadequate listening and expertise regarding this form of violence (untrained personnel).
- Uncoordinated healthcare in medical settings.
- Unprofessional care by the police (lack of training).
- A care pathway unknown to professionals and parents.
- Lack of traceability in follow-up.
- Absence of healthcare data concerning the care of this population.

At the forensic emergencies unit of the Forensic Medicine Department of CHU Mustapha, victims come at the request of the police or gendarmerie via a judicial requisition in the absence of severe physical injuries requiring care in medical-surgical emergencies.

In our department, forensic physicians conduct interviews with victims, and their accompanying individuals, especially when minors are involved, under optimized conditions, focusing on speed of care, calmness, discretion, and dedicated and well-equipped facilities.

We have observed that this significantly contributes to improving the quality and comfort of the medico-legal interview as well as obtaining the cooperation of the

victim's companions (consent).

II. METHOD:

Study Type: This is a cross-sectional, retrospective, and descriptive study involving minors under the age of 18 who were examined based on a judicial requisition to obtain a medico-legal report conducted at the forensic medical emergencies department at CHU Mustapha during a 12-month period (from January 1 to December 31, 2020).

Studied Parameters and Data Analysis: Data were collected from the medical certificate of findings of established sexual violence based on a requisition from the judicial authority and a questionnaire containing epidemioclinical data: describing the age, gender, family and sociocultural profile of the victim, the circumstances of the assault, characteristics of the perpetrator, the type of sexual contact, and any potential injuries found during the physical examination. Statistical analysis was performed using SPSS software, version 26.

III. RESULTATS :

In our series, requisitions for the examination of sexual violence on minors primarily came from the Brigade for the Protection of Vulnerable Persons, Central Division, accounting for 29%, followed by the same brigade's Eastern and Western divisions, as well as various Daira Police Stations in Sidi M'hamed, Hussein Dey, El-Harrach, Bir Mourad Raïs, Cheraga, Birkhadem, Zeralda (all administrative

districts in the Wilaya of Algiers), and some Daira Police Stations in neighboring provinces such as Boumerdes and Blida (Figure 1).

Sociodemographic Profile of the Studied Population: During the study period, 124 out of 162 minors who were victims of sexual abuse were included, accounting

for 77%. The average age of the minors was 12.51 years, with a standard deviation of 4.14 years. The most affected age group was 10-year-olds, with a rate of 30.6%, followed by those aged 13 to 16 and 16 to 18, with respective rates of 29% and 25% (Figure 2). The sex ratio (M/F) was 0.36. All the victims in the sample lived in urban areas

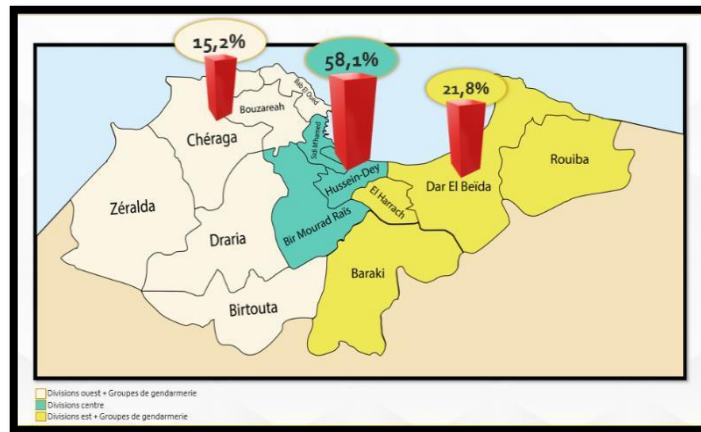


Figure 1 : Distribution of daïra security requisitioning the Medico-Judicial Emergency of the Forensic Medicine Service CHU Mustapha for sexual violence.

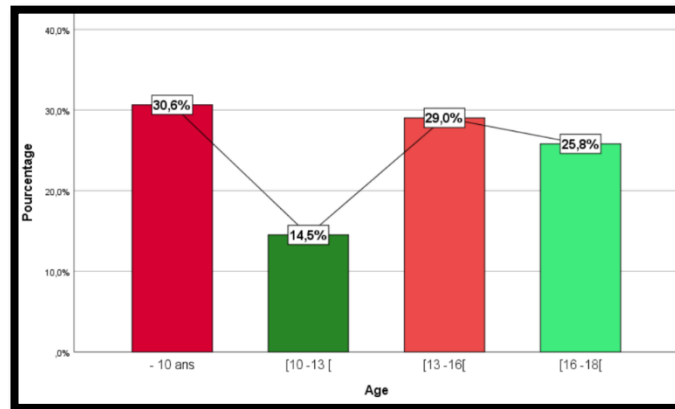


Figure 2 : Distribution of sexual violence against minors by age group.

• **The context of sexual assault:**

The various types of abuses are illustrated in Figure 3. They mainly involved sexual fondling in 49.2% of cases, followed by penile vaginal penetrations reported in about a third of cases (21.77%). Furthermore, the

absence of sexual assault was found in 18.5% of cases, and anal intercourse in 5.6% (more common among males). The majority of the abusers were male (93.5%). In more than half of the cases (73.4%), the abuser was someone close to the child and in 9.68% of cases, the

abuse was intrafamilial.

In our study, sexual assaults occurred at any time of the day, but they primarily occurred during the day and not at night. It should be noted that 68.1% of sexual violence against minors in our study occurred between 8 a.m. and 8 p.m.

As for the location of the assault, the perpetrator abused the minor in an isolated and sparsely populated public place in 76.61% of cases, and in 13.71% of cases, the assault took place at the perpetrator's own location (Figure 4).

In our sample, sexual assaults against minors occurred at any time of the day, but primarily during the day and not at night. It should be noted that 68.1% of sexual violence against minors in our study occurred between 8 a.m. and 8 p.m (Figure 5). We also observe that the abuse occurred on a daily basis. It is worth noting that 14.9% of minor victims of sexual assault could not recall the day of the abuse at the time of the interview.

In the distribution of victims by the month of the assault occurrence, it is evident that sexual assaults against minors happen throughout the year, but we observed a significant decrease in these assaults during the confinement period (Figure 6).

In the studied population, the vast majority of the perpetrators were known to the victims, accounting for a cumulative percentage of 75% of cases.

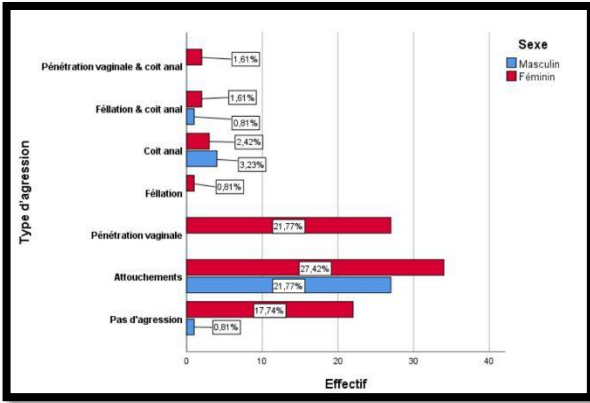


Figure 3 : Distribution of the different types of sexual assaults on minors by sex.

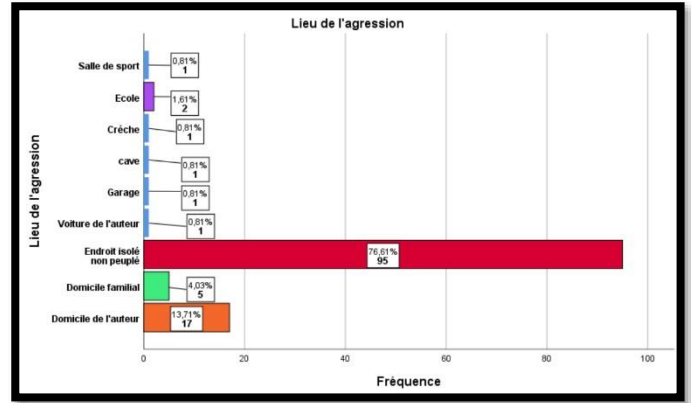


Figure 4 : Distribution by location of sexual assault on minors.

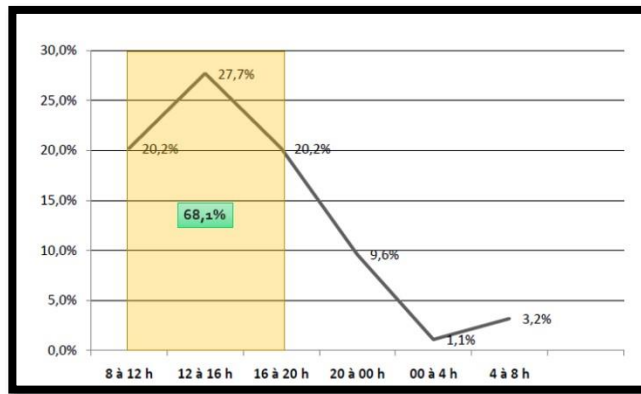


Figure 5 : Distribution of victims according to the time of

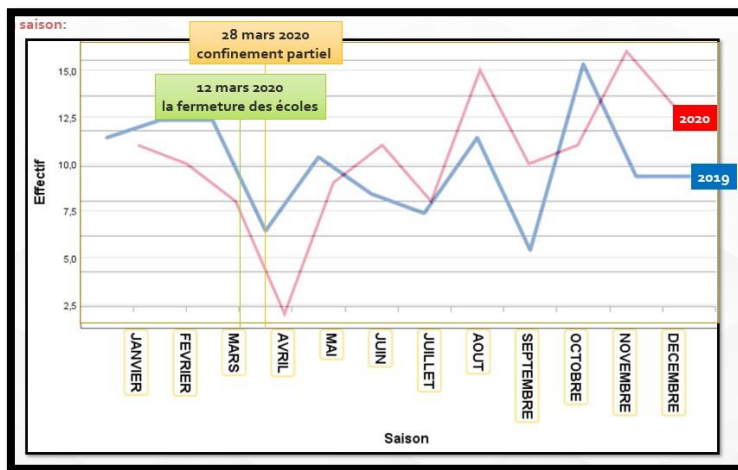


Figure 6 : Comparison of the distribution of victims by month of sexual assault between 2019 and 2020

Data Regarding the Results of the Victim's Examination:

In our sample, minor victims present for examination at any time of the day, although this is more likely to occur during the day than at night. It should be noted that 68.6% of examinations in our study were conducted between 8 a.m. and 4 p.m.

The genito-anal examination of minors in our series revealed genitoanal violence-related lesions in 26.45% of cases.

We observed that genital lesions were exclusively found in girls; no boys had any external genital organ injuries. However, among boys, we noted a higher incidence of anal injuries (Figure 7-8).

Gynecological examination is most often normal and cannot be conclusive on its own. The examination of the genital region showed no abnormalities in 71.59% (73.86%) of cases. Recent tears were observed in 2.27% of cases, while old tears were seen in 15.91%. It is worth noting that a widely compliant hymen was observed in 7.95% of cases (Figure 9).

Regarding the type of hymenal orifice, among female minors examined, annular hymens are the most common, followed by semilunar and fringed hymens (Figure 10).

Hymenal injuries increase with age starting from 13 years, with a peak among adolescent girls aged 16 to 18. Among girls, old injuries are the most common.

Examination of the anal region showed no abnormalities in 89.09% for both sexes. Recent injuries were observed in 6.72% with a predominance among males. No injuries to external genital organs were noted among boys.

In our series, sexual assault on minors under chemical submission accounted for 4.88%, of which 2.44% occurred under threat or without the victim's knowledge.

As for extra-genital violence-related injuries, they were observed in only 9.68% of cases, with a predominance in the age groups 13-16 and 16-18 years



Figure 9 : Radar diagram (Kiviati) diagram showing the topography of hymeneal lesions according to the time dial

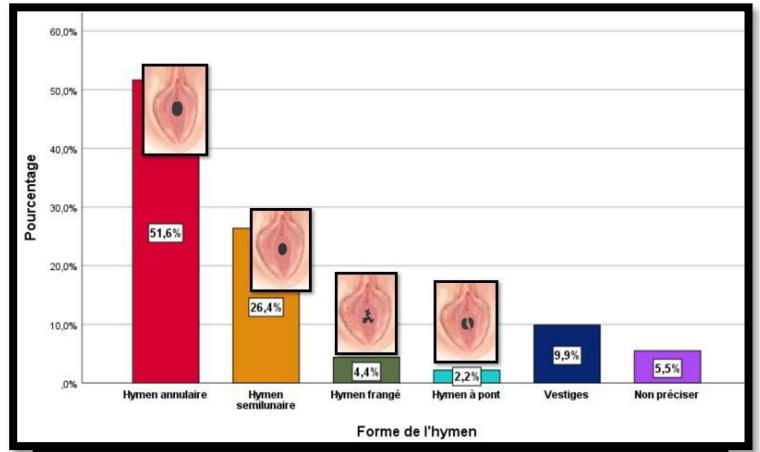


Figure 10 : Distribution of Forms of the Hymenal Orifice, for Minors females examined

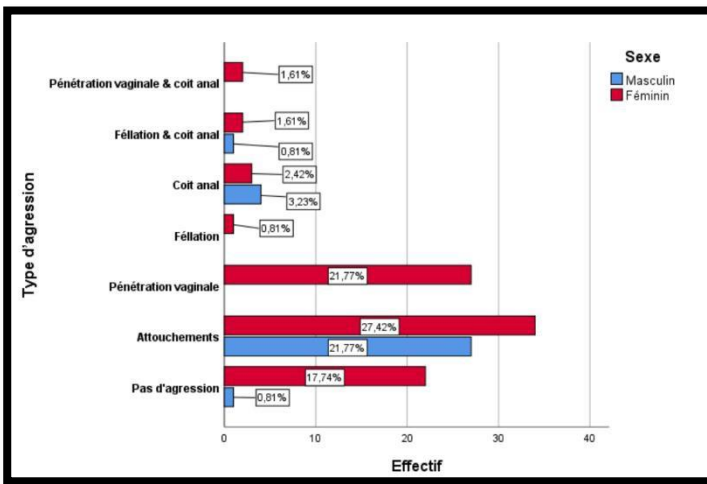


Figure 7 : Répartition des lésions de violence génito-anales en fonction du sexe de la victime.

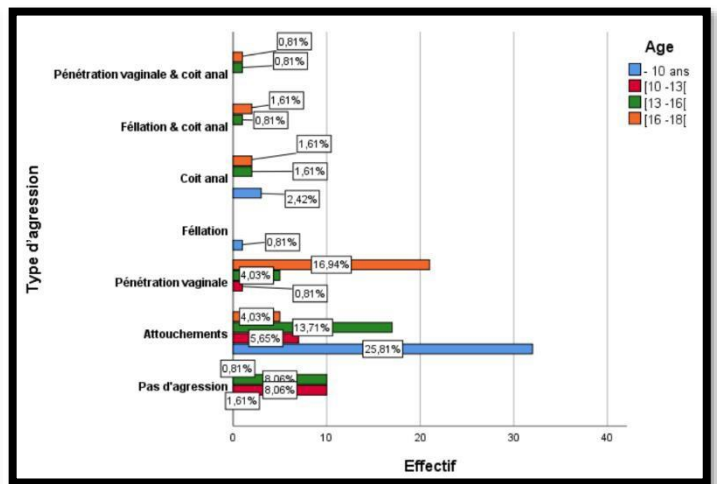


Figure 8 : Répartition des lésions de violence génito-anales en fonction de l'âge de la victime.

III. Discussion :

The average age of the examined minors was 12.51 years, with a standard deviation of 4.15 years. The age group between 12 and 18 years was the most affected, with a rate of 60.2%. Numerous studies have reported average ages ranging from 10 to 12 years when most victims experience sexual assault, with a peak at 6 years (under 10 years) and a second peak at 13-14 years (13-16 years) [3,10]. Likewise, the female predominance observed in our study was consistent with other works.

Regarding the nature of sexual abuses in minors, our study revealed that sexual fondling was the most common, followed by anal and/or vaginal penetrations. These results were in line with the literature [3,10,11].

Our study shows that:

Sexual assaults occur every day, at any time of the day, and throughout the year (47.9% of sexual violence against minors in our study occurred between 8 a.m. and 4 p.m.). Many authors report that these assaults often occur during the daytime, especially during school hours. We did not find any particular pattern regarding the weekly distribution of sexual assaults.

The perpetrator often chooses an isolated and sparsely populated public place to commit the violence. In 13.71% of cases, the child is abused at the perpetrator's location, and in 4.03% of cases, the abuse takes place in the family home. Our results are consistent with an Algerian study by Professor S. Atrous [12] and a study in Bone by Professor Y. Zeriaria [13], which showed high prevalence of these sexual abuses occurring in an isolated location, followed by the perpetrator's home.

However, these results contrast with studies from Morocco, Dakar, and Paris, which show that assaults occur more frequently in familiar places frequented by the child.

Concerning the characteristics of the perpetrator, in the majority of cases, the offender was an adult male known to the victim (75%), and some abuses occurred within the family circle (10.89%). This result aligns with data from various national and international studies [3,10,11,12,13]. This corresponds with the results in the literature, which state that sexual abuse is perpetrated by someone close to the victim in 75 to 78% of cases and by someone outside the family in 22 to 25% of cases. Our study does not allow us to describe a specific profile of the perpetrators since they are rarely encountered during the examination process.

Genito-anal examinations were normal in 73.55% of cases, which is quite different from the results of French, Tunisian, and Senegalese studies, which reported rates of 37.4% and 26.7%, respectively [14,15]. The discordance in results cannot be explained by comparing data from different methodologies based on different study populations. Based on our work, we can conclude that:

Sexual assault often involves penetration when the victim is between 16 and 18 years old and fondling when the victim is younger.

Genital examination of the child is usually normal and does not suggest abuse. Among girls, observed genitoanal injuries increase with age, peaking between 16 and 18 years for girls, unlike in boys.

These injuries are very rare in children under 10 years old, regardless of gender, due to anatomical differences between the perpetrator and the victim.

For girls, the vulvo-vaginal examination often reveals an annular hymen with complete hymenal tears, which are usually old and located on the posterior quadrant.

Concerning boys, when anal examination is positive, it often suggests sexual abuse. These injuries are most often recent and may sometimes be associated with anal dilation (similar recent injuries observed in girls). In the forensic emergencies unit at the Forensic Medicine Service of CHU Mustapha, we have adopted a protocol for the care of sexual assault victims that involves dual examiners, a forensic physician, and an obstetrician-gynecologist. We also use a colposcope for systematic photo-video documentation of both minor and adult

victim examinations.

This technique allows us to:

Visualize microscopic traumatic injuries not visible to the naked eye.

Improve the examination of the hymen, vaginal walls, and cervix.

Capture high-quality photographic images and video recordings. Photographs and video recordings prevent the repetition of gynecological and proctological examinations in cases of "doubtful" injuries (with prior consent from the victim or guardian). Studies conducted in centers worldwide that use colposcopes and photo-video documentation reveal a higher number of anogenital injuries, up to 80% of victims [16,17,18].

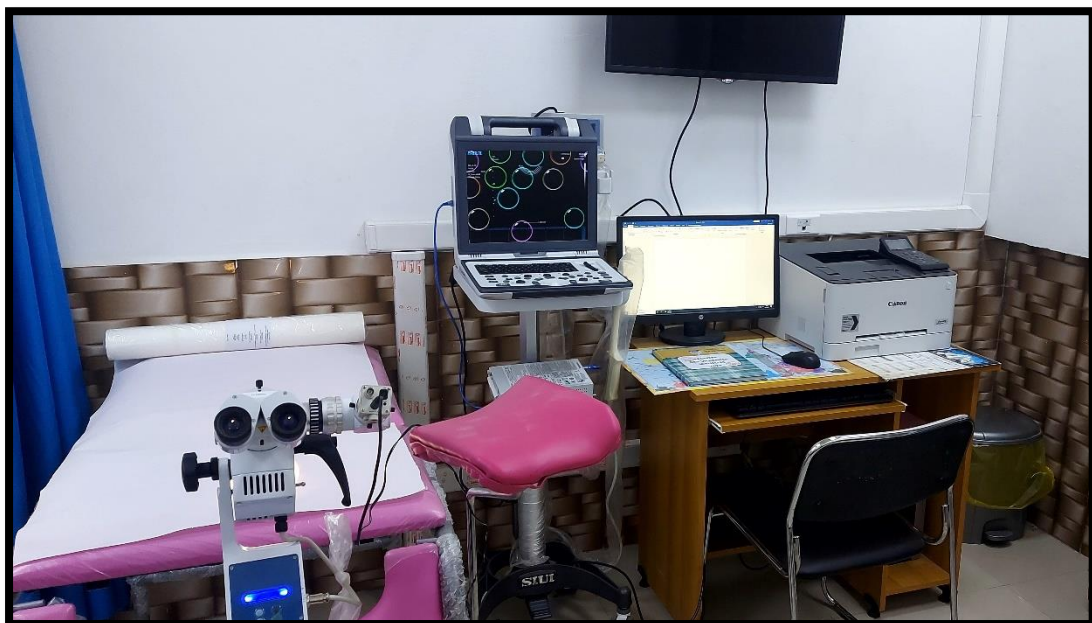


figure 11 : facility for the examination of victims of sexual violence with colposcope and photo - video documentation at the forensic emergencies unit of forensic medicine department of mustapha university center of algiers

V.CONCLUSION :

Sexual violence against minors is a frequent phenomenon, and reporting it is an obligation. The management of suspected sexual violence against a minor is more complex than that of an adult. This complexity extends to both the immediate care of these victims and the long-term, often irreversible, repercussions on their health, well-being, and development.

The medico-legal interpretation of situations of sexual assault reported by a minor (child) is challenging, as the physical examination, especially of the genital area, is often normal. Such an examination must be conducted by a qualified practitioner experienced in this type of trauma, under appropriate conditions, to ensure that medico-legal conclusions are objective. Incorrect conclusions, whether in favor or against, can have dramatic consequences.

For all these reasons, it is strongly recommended that these cases be promptly referred to specialized units, such as forensic emergencies units, where victims can receive personalized care, support, and appropriate referrals for medical and psychological follow-up based on their needs.

REFERENCES :

1. Marceline Gabel. Les enfants victimes d'abus sexuels. Presses universitaires de France. 1992.
2. Cisse CT, Niang MM, Sy AK, Faye EH, Moreau JC. Aspects épidémiocliniques, juridiques et coût de la prise en charge des abus sexuels chez les mineurs à Dakar, Sénégal.

Journal de Gynécologie Obstétrique et Biologie de la Reproduction. 2015 Nov 1;44(9): 825-31.

Robbana L, Belhadj A, Charfi F, Othmen S, Halayem S, Bouden A. Étude de 28 expertises d'abus sexuels sur mineurs.

Neuropsychiatrie de l'enfance et de l'adolescence. 2014 Sep 1;62(5): 287-92.

3. Nadia Aït-Zaï. Les violences sexuelles à l'encontre des adolescentes en Algérie. 2015.

4. La violence sexuelle - WHO | World Health Organization. http://apps.who.int/iris/bitstream/10665/86236/1/WHO_RHR_12.37_fre.pdf

5. Protocole facultatif à la Convention relative aux droits de l'enfant.

<https://www.ohchr.org/fr/ProfessionalInterest/Pages/opicrc.aspx>

6. Loi n° 15-12 du 15 juillet 2015 relative à la protection de l'enfant. JOURNAL OFFICIEL DE LA REPUBLIQUE ALGERIENNE N° 39 du 19 juillet 2015.

7. Loi n° 18-11 du 2 juillet 2018 relative à la santé. JOURNAL OFFICIEL DE LA REPUBLIQUE ALGERIENNE N° 46 du 29 juillet 2018.

8. Ordonnance n° 66-156 du 8 juin 1966 portant code pénal, modifiée et complétée.

9. Finkelhor D. The international epidemiology of child sexual abuse. Child Abuse & Neglect. 1994 May 1; 18(5): 409-17.

10. Rim Ben Soussia et al. Aspects épidémiocliniques et suites judiciaires des abus sexuels chez les mineurs à Monastir, Tunisie. PAMJ - 38(105). 01 Feb 2021.

11. Atrous S. Les violences sexuelles sur mineurs : aspects médico-légaux, juridiques et épidémiologiques. Thèse de doctorat en sciences médicales,

Faculté de médecine d'Alger ;
2017.

12. Zerairia y. Etude épidémiologique et médico-légale des Abus sexuels a l'égard des enfants à travers L'expérience du service de médecine légale du Chu d'Annaba. Années : 2012, 2013, 2014. Thèse de doctorat en sciences médicales, Faculté de médecine d'Annaba ; 2020.

13. Battah Ben yedder R. Les agressions sexuelles chez l'enfant du grand Tunis : à propos de 132 cas. Médecine légale. Thèse de doctorat en médecine, Faculté de médecine de Tunis ; 2012.

14. Sy O, Fall L, Guèye M. Les abus sexuels à KërXaleyi : aspects sociodémographiques et contexte d'interventions.

Neuropsychiatrie de l'enfance et de l'adolescence 59 (2011) : p. 305- 313.

15. Cossins. A. The role of photographic and video documentation in the investigation and prosecution of child sexual assault. J Law Med. 2016 Jun;23(4):925-37.

16. Templeton DJ, et al. Current issues in the use of colposcopy for examination of sexual assault victims. Sexual Health, 2006, 3, 5–10.

17. White.D, Du Mont.J. Visualizing sexual assault: an exploration of the use of optical technologies in the medico-legal context. Social Science & Medicine 68 (2009) 1–8.

