

Original Article**Medico-Legal Findings in Victims and Accused of Sexual Assault****Raj Kumar Karki*, Pankaj Kumar Singh, Abdul Sami Khan**

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Article Received: 22nd October, 2020; Accepted: 20th December, 2020; Published: 31st December, 2020DOI: <http://dx.doi.org/10.3126/jonmc.v9i2.33349>**Abstract****Background**

Sexual assault is one of the heinous and barbarous crimes and continues to plague our nation. It is present in every countries cutting across boundaries of culture, race, gender, relationship, social standing and the extremes of ages. The current study aims to analyze the incidence of sexual assault cases, their socio-demographic parameters, incidence to reporting time and relationship of the assailant with the victim and pattern of injury for evaluation of sexual assault.

Materials and Methods

The medico-legal reports of 102 sexual assaults cases were retrieved and analyzed retrospectively which was examined by Department of Forensic Medicine from October 2019 to September 2020 at Dhulikhel hospital. All the data were entered in SPSS version 25 and results were ascertained.


Results

Out of 102 samples, 52 female victims and 48 accused were analyzed. Two were male victims of sodomy. The mean age was 20.54 ± 10.78 and 27.67 ± 11.08 for victim and accused respectively, the most vulnerable being unmarried teenagers. Most of the accused and victims were familiar with each other (81.25%) and the common incident locale was victim's own house. Genital injury was seen in 53.85% and general injury in 32.7% of the victims. Only 13.46 % victims and 12.50% of accused were brought for examination on the same day. Genital injury had significant association with age ($p=0.003$) and day of examination ($p=0.029$). Four of the victims were positive for pregnancy test.

Conclusion

Hence this study aims to highlight that sexual assault is a catastrophe and there is a dire need of educating the vulnerable groups.

Keywords: *Genital, Injuries, Sex*

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Introduction

Sexual assault is amongst the most traumatic, atrocious and savage amongst violence crimes where perpetrator uses physical / psychological aggression and sex as weapon to target the vulnerable population [1].

Despite the punishment ranging from 7 to 20 years imprisonment, statistics of Nepal show that cases are alarmingly rising within past 2 decades from 112 cases in the year 1996 to 2230 in year 2019 [2]. Though in developed countries it is investigated second only to murder, sexual assault is a neglected public health issue in most of the developing countries [3]. It is a problem of all socioeconomic classes and globally impacts the physical, mental, social, psychological and spiritual health status of victims throughout their life. Mostly sexual assault has been underreported, underrated and unsupported [4-6]. Apart from psychological symptoms like post-traumatic stress disorders, there are devastating short and long term health consequences to consider, such as physical injuries, STDs, unwanted pregnancy, attempts to abortion even endangering lives [1, 3, 7-9]. No age is spared, [1, 10-13] and no relation is safe as biological fathers also have been reported as assailants [1, 5, 11]. Similarly, male victimization is also common and not limited to all-male populations [10]. The examiner must also emphasize in his report that the presence or absence of genital trauma does not translate the presence or absence of sexual assault [4, 14, 15].

Hence, we are conducting this study to encourage a timely, high-quality medical forensic examination which can potentially validate and address sexual assault victims, minimize the trauma they may experience, and promote their healing.

Materials and Methods

A retrospectively cross-sectional study was conducted at Department of Forensic Medicine, Dhulikhel hospital from October 2019 to September 2020. As it is one of the One step Crisis Management Centre (OCMC) in Nepal, all gender based violence cases of this region requiring medico-legal examination are brought here. A written consent was obtained prior to the examination after informing regarding the confidentiality of their records. In case of children consent was taken from parents/guardians. An ethical approval was taken from Institutional Review Committee, Kathmandu University School of Medical Sciences (IRC-KUSMS). All alleged sexual assault victims of all ages and suspected assailants that were reported to police from this province brought to Dhulikhel Hospital were

included in this study. Those who declined for medico-legal examination and who disapprove for the participation in study were excluded. Data was collected from medico-legal report prepared by Department of Forensic Medicine on the basis of guidelines of Nepal Government. All the cases were examined by the authors as medico-legal experts. A standard questionnaire was prepared which included all the relevant information such as preliminary details of both accused and victims along with identification marks, date and time of incident, age, marital status and relation with the victim. The general and genital injuries were noted along with the other investigations. Using the formula, $n = \frac{z^2 \times p(1-p)}{e^2}$ where z is confidence level at 95% (1.96); e is margin of error taken as 5% and p is expected prevalence from literature [2]. The sample size for female victims and accused were calculated as 48 each. However, we have included 52 female victims and 48 accused within one year duration. Two were male victims of sodomy.

The collected data was entered in Microsoft excel and analyzed using Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, US), version 25.0. For qualitative variables, a descriptive analysis was performed, and the results were presented as frequencies (percentages). The frequency of quantitative variables was calculated and represented by the mean (Standard Deviation (SD)). The chi-square test and Fischer's Exact test was used to identify significant associations or perform comparisons between two qualitative variables. A p -value less than 0.05 were considered significant.

Results

In the period of one year from October 2019 to September 2020, the total of 102 cases (victim and accused) were brought to Dhulikhel hospital for medico-legal examination, out of which 54 were alleged victims and 48 were alleged perpetrators. There were two 14 years old male victims of sodomy cases, and there was abnormal finding during perianal examination in one case. Table 1 illustrates the various information provided by the female victims and perpetrators. The mean age of female victims was 20.54 ± 10.78 ranging from 6 years to 55 years with children and adolescents composing the majority 26(50%). Similarly, the mean age of perpetrator was 27.67 ± 11.08 , minimum being 14 and maximum age being 62. Majority 25(51.9%) of the victims were not married whereas 29 (60.4%) of the assailants were married. The majority of victims 14 (26.92%) were accompanied for medico-legal examination by only police. Similarly



Table 1: Distribution of cases according to different variables

VARIABLES	VICTIM		PERPETRATOR	
Age range (years)	N=52	%	N=48	%
(1-9)	8	15.39	0	0.00
(10-18)	18	34.61	13	27.08
(19-27)	16	30.77	15	31.25
(28-36)	7	13.46	10	20.83
(37-45)	0	0.00	8	16.67
More than 45	3	5.77	2	4.17
Mean age	20.54±10.78		27.67±11.08	
Minimum age	6		14	
Maximum age	55		62	
Marital status	N=52	%	N=48	%
Married	25	48.10	29	60.40
Unmarried	27	51.90	19	39.60
Accompanied by	N=52	%	N=48	%
Police only	14	26.92	47	97.90
Husband	11	21.15	0	0.00
Mother	9	17.31	1	2.10
Friend	5	9.62	0	0.00
Relative	13	25.00	0	0.00
Victim-perpetrator relationship	N=52	%	N=48	%
Stranger	8	15.38	9	18.75
Relative	12	23.08	8	16.67
Friend	5	9.62	7	14.58
Acquaintance	27	51.92	24	50.00
No of Accused	N=52	%	N=48	%
One	48	92.30	38	79.17
Two	2	3.85	4	8.33
>Two	2	3.85	6	12.50
Incident locale	N=52	%	N=48	%
Victim's Place	16	30.77	14	29.17
Perpetrator's Place	12	23.08	3	6.25
Jungle/field	12	23.08	18	37.50
Public place	5	9.62	9	18.75
Vehicle	2	3.84	3	6.25
Hotel/Other private rooms	5	9.61	1	2.08

husband and mother accompanied in 21.15% and 17.31% and the remaining were accompanied by various relatives and friends. According to the victims or their guardian, vast majority 44 (84.61%) of them knew their assailants. Amongst them, 12 (23.08%) were close relatives and majority were acquaintances (neighbor, friend's friend, landlord etc). Similarly according to perpetrator also majority 39 (81.25%) of the victim was known to him. In 4 (7.69%) cases there were multiple assailants as per the victim. But there were more cases 10 (20.83%) of involvement of more than one assailant according to accused. According to victim, the most common incident locale was the victim's own home in 16 (30.77%) cases whereas according to accused, the incident took place commonly in jungle and isolated fields in 18 (37.50%) cases. According to the data collected from victim and perpetrator the most common time range when the incident took place was from 6:00 pm to 12:00 am midnight. Similarly both were brought for examination during the same time range as

shown in Table 2. Majority of victims and perpetrators were examined from 2nd day to 1 week. However, there were many cases that were examined only after 1 month up to one year (Table 2).

Table 2: Time of Incident and Examination

VARIABLES	VICTIM		PERPETRATOR	
Incident Time	N=52	%	N=48	%
00:00hrs to 06:00hrs	0	0.00	0	0.00
06:00hrs to 12:00hrs	7	13.46	7	14.58
12:00hrs to 18:00hrs	17	32.69	18	37.50
18:00hrs to 24:00hrs	28	53.85	23	47.92
Examination Time	N=52	%	N=48	%
00:00hrs to 06:00hrs	0	0	0	0
06:00hrs to 12:00hrs	0	0	9	18.75
12:00hrs to 18:00hrs	17	32.69	9	18.75
18:00hrs to 24:00hrs	35	67.31	30	62.50
Lapsed time from incident to examination	N=52	%	N=48	%
Same day	7	13.46	6	12.50
2 nd day to 1 week	29	55.77	20	41.67
1week to 1month	6	11.54	9	18.75
1month to 1year	10	19.23	13	27.08

Table 3 illustrates about the findings of forensic examination in accused and victim. There were no external body injuries observed in 67.3% of victims and 66.67% of accused. The genital injuries were seen only in 28 (53.85%) victims, whereas no genital/anal injuries were found in assailants. Prior to coming to hospital for examination 33 (63.46%) of the victims and 30 (62.5%) of assailant had changed their clothes. As noted in table 3, Post sexual assault consequences in victim was psychological trauma in 2 cases and pregnancy in 4 cases. Nevertheless, the tests done for Sexually Transmitted Infections were found non-reactive in all of the cases. No treatment was required in perpetrators but 15 (28.85%) of the victims had required treatment post incident.

Table 3: Forensic examination findings of the victims and perpetrators

VARIABLES	VICTIM		PERPETRATOR	
General Injuries	N=52	%	N=48	%
Yes	17	32.70	16	33.33
No	35	67.30	32	66.67
Genital injuries	N=52	%	N=48	%
Yes	28	53.85	0	0
No	24	46.15	48	100
Worn Clothes	N=52	%	N=48	%
Changed	33	63.46	30	62.50
Not changed	19	36.54	18	27.50
Consequences after incident	N=52	%	N=48	%
Psychological trauma	2	3.80	1	2.10
Pregnancy	4	7.70	0	0
STD	0	0	0	0
None	46	88.50	47	97.90
Treatment	N=52	%	N=48	%
Required	15	28.85	0	0
Not required	37	71.15	48	100



Table 4: Types of genital injuries

Genital injuries	Frequency	Percent
None	24	46.20
Old Hymen Tear	8	15.40
Fresh Hymen Tear	10	19.20
Perineal injury	10	19.20
Total	52	100

No genital injuries were seen in 24 (46.2%) of the cases (Table 4). Fresh hymenal tear with blood and perineal injury was seen in 10 (19.2%) cases each. Time of examination after incident had a significant association with the presence of genital injuries ($p=0.029$ by chi square test) as shown in Fig 1, injuries being more commonly when the examination was done within 1 week than after 1 week. Genital injury was seen most common in children than adults and was common in unmarried than married. Figure 2 shows the association of presence of genital injury with age of the victim which was found to be significantly associated with the age of the victim ($p=0.003$ by Fischer's Exact test).

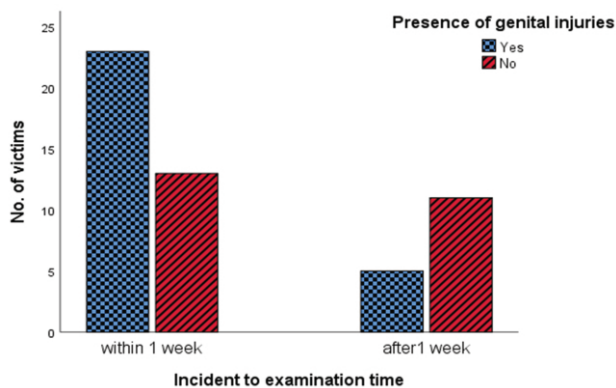


Figure 1: Association of genital injury with time of examination.

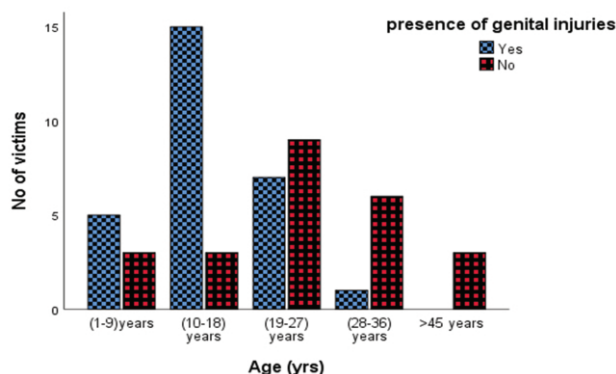


Figure 2: Association of genital injury with age of victim.

Discussion

Sexual assault constitutes a huge proportion amongst serious crimes as shown by staggering statistics worldwide [7] including Nepal [2]. With the current study, we have tried to evaluate the characteristics of both victim and accused of

sexual assault cases which were referred from police for medico-legal examination at Dhulikhel Hospital. Within the period of 12 months from October 2019 to September 2020, 54 victims and 48 accused were brought. Majority of the victims and perpetrators were brought by investigating police only. However in many cases, victims were accompanied by husband, mother and relatives which were also seen in other studies [4]. Only two, amongst the victims were male children and were the cases of sodomy. In all of the studies, female significantly outnumbered male suggesting that female are more vulnerable both in private and public life [1, 7, 16, 17]. Hence, it is recognized as a gendered crime, violating freedom of women and fueling gender inequality [8, 18]. Moreover, in our study, incidence of male victims was very low, hence were not included in further analyses.

The mean age of victim was 20.94 years and the most vulnerable age group being 10-27 years. It mirrored the previous studies, where the most affected group were also adolescents and young adult and the frequency tended to decrease with advanced age [4, 5, 10-12, 16-19]. However, much younger female with mean age of 15.28 was seen in another study [7]. This finding reflects that being young is already a predisposing factor of sexual assault. In the current study, 15.39% were victimized below the age of 9 years, minimum being 6 years which was in agreement with other studies [4, 17]. There are several horrifying studies where infants and children of 1 year and below are victimized [1, 7, 11, 13, 17]. These studies indicate that children are chief victims of this barbarous crime as they cannot physically resist and defend themselves. Hence, we would like to advocate for taking attention of this vulnerable group by parents and community. It is awful to know that elderly above the age of 70 years were also not spared [1, 7, 10, 13] and are primarily assaulted by their caretakers [13]. There are reports where elderly of 88 and 89 years are also victimized [13, 16]. In the present study only three of the victims were above the age of 45. This startling statistics proclaims that no age is sheltered from sexual assault. Most of the accused in our study were in third decade of life which corroborated with findings of other authors. Astonishingly there are studies where much younger boys of 10 and 11 years have perpetrated the crime [8, 10]. The maximum age of perpetrator was 62 years in the current study; surprisingly the elderly of 78 years had committed the act in another [10]. Agreeing with many other studies, our study also revealed that most of the perpetrators were known by the victim. Only 18.75% of the perpetrators were stranger which was in close proximity to other studies [1, 5, 10, 11, 16, 18, 19]. However there was much higher percentage of involvement of



strangers in other studies [17]. This statistics attributes that victims have more danger from their known persons who keep their moral value and ethics at bay [19]. It was abominable to learn that even biological father had sexually assaulted their little ones [5, 10, 11, 19]. Moreover, spouse and partners were perpetrators in few studies [10, 17, 19]. In our study the closest blood relative perpetrator was brother in one case, which was in accordance with the study done by Lal [11]. 23.08% according to victims and 16.67% according to accused were relatives in the current study, which reflected studies by Lal (14%) [11], Celikel (16.6%) [1], Bhoi (10.55%) [18], Loder (9.4%) [17] and was much lower in others [12, 16]. This concludes that our girls and women could not be secure even amongst their nearest and dearest ones.

As in all other studies, single perpetrator was involved in majority of cases including the current study. Nonetheless, there was involvement of multiple perpetrators in 7.7% cases according to victim and 20.8% according to accused. This may be due to perpetrators being involved in the same event or false report given by him. Our findings are fully consistent with some but not all studies in case of involvement of multiple assailants as in Jude (28%) [8], Lal (13%) [11], Scherer (18%) [12]; Zilkens (>8.0%) [16], Loder (9.3%) [17], Jha (18.2%) [10], Pal (8.57%) [19]. There was a case in Nepal where 8 assailants were involved [9]. High incidence of gang rape may be attributed to the increasing rate of gangsterism and armed robbery [8].

Majority (30.77%) of the incident occurred at victim's house in our study showing victim is not safe at her own house. However this result disagreed with the other studies where the act was commonly committed at perpetrator's house [17-19]. It was attributed to the fact that unsuspecting victim's are lured to perpetrator's house not knowing that a known person could have such malice motive [8]. Agreeing with our report other studies also revealed few incident locale as jungle or isolated fields as these lonely areas are advantageous for offender with no one to interfere [8, 16, 17]. Few incidents (3.84%) have occurred in vehicle in our study which was also seen few studies [8, 12].

More than half of the victims were unmarried in the present study and the percentage was much greater in other studies [5, 10, 18, 19]. This shows the vulnerability of unmarried girls as a prey for sexual offences is more. Unlike developed countries, it is important to document marital status, as sexual contact needs a lawful wedlock in our society [18].

Most of the crime has been accomplished during evening and night time in our study which disa-

greed with other authors who have recorded majority in daytime [8]. It is the same time range when majority of cases were brought for examination. Minority (13.46%) of the victims and 12.5% of accused were brought for examination on the same day which was in harmony with other studies [19] unlike in others where majority of the victims were brought on the day of incident [4, 10, 11, 16]. 19.23% of victims and 27.08% of accused were examined when more than 1 month had lapsed which was close to other findings [11]. Delay in medical examination and reporting of cases may result in loss of vital evidence. Delay may be due to stigma, fear and taboo regarding sexual assault which delayed in decision making by relatives [4].

In 33.33% of cases, general injuries were found in accused and none had genital injuries. This low finding may be due to minimum resistance offered by victim; the injuries may have healed rapidly during delayed examination or may be due a false allegation. In the current study, 32.7% of the victims had general injury which may be due to their struggle and non consent during the incident. Several patterns and percentages of bodily injuries are seen in various studies by Jha (26.7%) [10] Afandi (22.4%) [7], Bhoi (19.79%) [18], Khan (21.7%) [4], Hirachan (15%) [5], Lal (13.5%) [11].

Heterogeneity in research methodologies and different inclusion and exclusion criteria of genital injury could be attributed to difference in rate of genital involvement [15]. There was 53.85% genital injury including the old hymen tear since many unmarried girls had old hymenal tear and had reported very late. Several consistent and inconsistent results are seen in other studies by Khan (46.1%) [4], Hirachan (36%) [5], Afandi (22.4%) [7]. Fresh hymenal tear was seen in 19.2% which was intermediate between studies by Lal (3.5%) [11] and Afandi (42.8%) [7]. Perineal injury was seen in 19.2% in current study which was approximate to study by (Lal 13.5%) [11]. The long lag phase of incident to reporting time may have concealed the injury. Sometimes other injuries camouflage the actual injury.

We observed a significant association between age and presence of genital injury which added up to the finding of Afandi et al and reflected that most of the children and adolescents had genital injury compared to adults [7]. Similarly it was obvious of genital injury to be significantly associated with the time lapsed after incident to examination. Hence absence of genital injuries does not reflect the absence of sexual assault [15].

Clothes are the vital evidence producing objects but sadly majority (63.46%) of the victims and accused had changed clothes worn during incident which was proximate to previous studies [8, 10]. This may be due to ignorance of victim and accused might have tried to destroy the evidence.



The consequences of sexual assault can occur immediately or after long term such as mental health problems, STD, pregnancy and sometime death can ensue [7]. Pregnancy test was positive in 7.7% of the victims, amongst which one had even delivered a baby and had presented months after assault. This corroborated with the study by other authors [11, 19]. Psychological trauma like fear, anxiety, sleep abnormality was seen in 2 of the cases. We could not find a significant literature to which we could compare our results. However, minor to major treatment were required in 28.85% of victims.

Authors intend to clarify that research in this area is full of uncontrollable variables, and therefore, it is not completely possible to make reliable conclusions of sexual assault considering genital lesion as the only evidence. The follow up of sperm and semen detection could not be done and this study may not represent the actual incidence in the populace. There is therefore need for a community-based research to ascertain the true prevalence of this assault so that its occurrence could be counter-checked. Authors opine that standard techniques of examination, medico-legal expertise, properly and uniformly defining bodily and genital injuries should be maintained so that convincing and uniform result can be assessed in future and hence it might be a great help to the vulnerable group and society as a whole.

Conclusion

Sexual assault does not have any other witnesses than the alleged victim and accused hence, police investigation relies heavily on the documentation and interpretation of the injuries (genital and non genital) in relation to the allegations. However, mere absence of physical injuries may not translate the absence of sexual assault. After studying the sociodemographic profile and medicolegal examination, we concluded that children and adolescents are the most vulnerable group and are mostly perpetrated by known persons.

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Conflicts of interests: None

References

- [1] Çelikel A, Demirkiran DS, Ozsoy S, Zeren C, Arslan MM, Factors Associated with PTSD in Cases of Sexual Assault, *J Psychiatry*. 18:1 (2015); 14-88. DOI: 10.4172/2378-5756.100018
- [2] Crime Investigation Department, Crime data related to women and Children of fiscal year 2075/2076. <https://cid.nepalpolice.gov.np/index.php/cid-wings/women-children-service-directorate>. Accessed on 2 Sep 2020.
- [3] Cybulska B, Sexual assault: Key issues, *J R Soc Med*. 100 (2007) 321-324. PMID: 17606752 DOI: 10.1258/jrsm.100.7.321

- [4] Khan M, Aziz S, Qamar N, Memon JQ, Frequent factors for women and children subjected to sexual assaults presenting at Jinnah Postgraduate Medical center, Karachi, *J Pak Med Assoc*. 64:6 (2014) 649-652. PMID: 25252483
- [5] Hirachan N, Limbu D, An Overview of Sexual Assault Cases, *J-GMC-N*. 9:2 (2016) 43-46. DOI: 10.3126/jgmcn.v9i2.17865
- [6] Dhakal G, Women's Experience of Sexual Harassment in Carpet Factories, *J Nepal Health Res Council*. 7:15 (2009) 98-102. DOI: 10.3126/jnhrc.v7i2.3015
- [7] Afandi D, Medicolegal study of sexual violence cases in Pekanbaru, Indonesia: prevalence, pattern, and Indonesian legal framework, *Egyptian J Forensic Sciences*. 8:37(2018) e1-10. DOI:10.1186/s41935-018-0067-5
- [8] Jude UO, Benedict N, Perpetrators of rape as reported in Central Hospital, Benin City, Nigeria, *IOSR-J Den Med Sci*. 13:10(2014) 37-40. DOI:10.9790/0853-131023740
- [9] Sebaeng JM, Davhana MM, Manyedi E, Experiences of women who reported sexual assault at a provincial hospital, South Africa, *Curationis*. 39:1 (2016) e1-e7. DOI: 10.4102/curationis.v39i1.1668
- [10] Jha S, Yadav BN, Thakur A, Medico-legal assessment of sexual assault victims in eastern region of Nepal, *J Int Sci Research*. 6:12 (2017) 82-84. DOI: 10.36106/ijsr
- [11] Lal S, Singh A, Vaid NB, Behera S, Sexual Assault Survivors Reporting to a Tertiary Care Hospital in Delhi: A Retrospective Analysis, *J Clin Diag Research*. 8:9 (2014) 9-12. DOI: 10.7860/JCDR/2014/9070.4796
- [12] Scherer S, Hansen SH, Lynnerup N, Sexually assaulted victims are getting younger, *Dan Med J*. 61:2 (2014) A4780. PMID: 24495887
- [13] Senanayake SM, Karunathilaka HA, Age and injury patterns of female survivors of different alleged sexual assaults examined in the Teaching Hospital Anuradhapura, Sri Lanka, *Sri Lanka J Forensic Med, Science & Law*. 8:1 (2017) 23-32. DOI: 10.4038/sljfmsl.v8i1.7790
- [14] Astrup BS, Ravn P, Lauritsen J, Thomsen JL, Nature, frequency and duration of genital lesions after consensual sexual intercourse-implications for legal proceedings, *Forensic Sci Int*. 219:1-3 (2012):50-56. DOI: 10.1016/j.forsciint.2011.11.028
- [15] Orellana CC, Genital Injuries: Are They Telling us Something about Sexual Violence? *Rev. Bras. Gynecol. Obstet*. 42:2 (2020) 106-113. DOI: 10.1055/s-0040-1701465.
- [16] Zilkens RR, Smith DA, Philips MA, Mukhtar SA, Semmens JB, Kelly MCI, Genital and anal injuries: A cross-sectional Australian study of 1266 women alleging recent sexual assault, *Forensic Sci Int*. 275(2017) 195-202. DOI: 10.1016/j.forsciint.2017.03.013
- [17] Loder RT, Robinson TP, The demographics of patients presenting for sexual assault to US emergency departments, *J Forensic and Legal Med*. 69 (2020) e1-e12. DOI:10.1016/j.jflm.2019.101887
- [18] Bhoi SB, Shirsat KB, Meshram SK, Waghmare SA, Kamleet RA, Profile of sexual offences: A 4 year retrospective study at tertiary care hospital of Western Maharashtra, *Int J Forensic Med and Toxicological Sci*. 2:1 (2017) 17-21. DOI:10.18231/ijfjmts.2017.005
- [19] Pal KS, Sharma A, Kumar SA, Singh RA, A Study of Sexual Assaults in Northern Range of Himachal Pradesh, *Int J Med Toxicol Forensic Med*. 5:2 (2015) 64-72. DOI:10.22037/ijmtfm.v5i2(Spring).6960

