

# Head and Neck Injuries Observed in Violence against Women

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## Abstract

Gender-based violence is a public health problem according to the WHO, especially among women. Head and Neck injuries during this type of violence are multiple, responsible for physical and psychological damage that can alter the social and professional life of the woman. The aim of this study was to map the Head and Neck injuries observed during domestic, marital or family violence against women. Our retrospective and prospective study conducted from 2018 to 2020 in the ENT, Head and Neck service at reference health center of the commune I of Bamako in Mali, allowed us to collect 30 files of female patients who were victims of violence. The prevalence of violence was identified in 24% of cases out of 125 cases of trauma in women. The average age was 26 years with extremes of 12 to 48 years. Female students represented 33.33% of the cases. Married women represented 66.67%. The perpetrator was the spouse or partner in 73.33% of the cases. The mode of aggression was slapping in 76.67% and punching in 23.33%. The predominant functional and physical signs were respectively otalgia, hearing loss (30% each) and tympanic perforation (50%). 13.33% had a type 1 tympanoplasty. Residual perforations with conductive hearing loss were noted in 13.33% at 45 dB. These traumas affect a population of varied socioeconomic level, relatively young, posing a problem of psychological care and integration of women within the socio-professional activities vector of economic independence.

## Keywords

Violence, Women, Head and Neck Injuries, Trauma

## 1. Introduction

Gender-based violence is a public health problem according to the WHO (Orga-

nização Mundial de Saúde, 2002) especially among women, often resulting in morbidity and mortality (Shah et al., 2012). In France, approximately 201,000 women are victims of this violence, perpetrated each year, either by their partner or by their ex-partner (Simon et al., 2015). In Mali, according to the MINUSMA report, from January to November 2021, 7962 women victims of gender-based violence were recorded [consulté le 25 mars 2022]. The harm caused can be physical, sexual, psychological, moral or material. According to Enquête Démographique et de Santé du Mali (EDSM VI), 49% of women aged 15 - 49 years in union or in union breakdown have experienced emotional, physical and/or sexual violence at any time 2.1% of women have experienced physical violence against their current/most recent husband/partner at any time (Ndiaye, 2021).

In the majority of cases of physical violence, the most affected body part is the head and the incident takes place in the domestic setting. Despite the fact that a variety of studies exist on this subject listing the injuries on different parts of the human body, many of them have not seen the need to study the specific characteristics of the Head and Neck region and the damage that can result. Essential functions such as hearing, balance, breathing, chewing, swallowing and phonation reside in the craniofacial region and an assault affecting this area could result in significant functional alterations. In addition, the face is the center of human attention, its esthetics has great value in the context of social life, which gives it great affective, emotional and functional importance (Castro et al., 2017; Dourado & Noronha, 2015). Head and Neck Injuries can therefore be responsible for physical and psychological damage that can alter the social and professional life of the woman (Castro et al., 2017; Garcia-Moreno & Watts, 2011; Tam et al., 2010).

In our context, very few studies have been carried out concerning Head and Neck injuries sphere during gender-based violence. Observation also made by Wong among Chinese women (Wong et al., 2014).

Our aim was therefore to establish a map of Head and Neck injuries observed during violence against women (domestic, marital or family violence).

## 2. Methodology

Our study was retrospective and prospective conducted from January 2018 to 2020 in the ENT, Head and Neck service at the Health Center of Reference of area I of Bamako in Mali. The sample size collected was 30 female patients who were victims of gender-based violence. Male patients as well as female victims of other trauma were excluded.

Information was collected from patient records and then onto an Excel spreadsheet and then analyzed.

As for the ethical aspect, the agreement of each patient was obtained before the study.

The variables studied were: the socio-epidemiological situation (age, sex, profession, marital status, identity of the aggressor, frequency of aggression) and

clinical data (reason for consulting, delay in consulting, mode of aggression, associated functional and physical signs, treatment).

### 3. Results

During the study period, we recorded 125 cases of trauma among women, 30 of which were domestic trauma cases, i.e. 24%. The average age was 26 years with extremes from 12 to 48 years, the most represented profession was that of pupils/students in 33.33% of cases, followed closely by housewives (30%) (Table 1).

66.67% of the victims were women who were married in a monogamous regime in 90% of the cases. The act of violence was perpetrated by the husband in 70% of cases (Table 2). This episode of violence was not the first one committed by the aggressor in 26.67% of the victims. The main occupations carried out by these victims were workers (26.67%) and shopkeepers (20%).

We noted two modes of aggression used: slapping in 76.67% of cases and punching in 23.33%.

The majority of patients came for consultation within one week (67.7%) for otalgia and hearing loss in 30% of the cases each and this within one day to one week (46.67%). While the most frequent functional signs were comparable to the reasons for consultation: hearing loss and otalgia (Table 3), the most frequent physical sign was tympanic perforation in 50% of cases with fracture of the malleus handle in one patient (Table 4).

**Table 1.** Distribution by victim's occupation.

Profession	Number	Percentage %
Tradeswoman	6	20
Housewife	9	30
Pupil/student	10	33.33
Others	5	16.67
Total	30	100

Others: housekeeper, civil servant, cashier, seamstress.

**Table 2.** Distribution of patients by relationship to perpetrator.

Relationship to perpetrator	Number	Percentage %
Spouse	21	70
Fiancé/copain	2	6.67
Brother in law	2	6.67
Brother	2	6.67
Cousin	1	3.33
None	2	6.67
Total	30	100

**Table 3.** Distribution of patients according to functional signs.

Functional signs	Frequency	Percentage %
Hearing loss	17	56.67
Otalgia	16	53.33
Tinnitus	11	36.67
Otorrhea	5	16.67
TMJ pain	4	13.33
otorrhagia	3	10
Headache	2	6.67
Epistaxis	1	3.33

**Table 4.** Distribution of patients according to physical injuries.

Physical injuries	Frequency	Percentage %
Tympanic perforation	15	50
Inflammatory eardrum	4	13.33
Inflamed EAC	4	13.33
Normal otoscopy	5	16.67
Hemifacial swelling	2	6.67
Left palpebral hematoma	2	6.67
Others	3	10

Others: hammer handle fracture, endonasal injury, retroauricular injury.

We noted spontaneous healing of 80% of the perforated cases. 13.33% underwent a type I tympanoplasty.

Auditory sequelae were noted in 13.33% of cases, such as moderate conductive hearing loss with residual perforation and an estimated average loss of 45 dB and tinnitus.

At the time of the study, some of them were able to benefit from psychological support. The psychological consequences, of variable importance, are not quantifiable: nevertheless, we have recorded 1 case in the process of divorce after the attack and 2 divorces.

#### 4. Discussion

Our frequency was 24% of domestic violence cases among all patients admitted in consultation for trauma of the ENT sphere, this frequency is higher than that of ODZILI F. A. et al. (Itiere Odzili et al., 2016) who reported 9.6%.

In the United States, more than 1 in 3 women experience sexual contact violence, physical violence or harassment in their lifetime (Smith et al., 2019).

Identification of IPV victims is exceptionally difficult as only 2.5% - 15% of individuals with a history of IPV report it to an authority (Thomas et al., 2021).

According to the World Health Organization, young women, especially those aged between 15 and 19 years, are more likely to suffer violence from their entourage and their partners (Organização Mundial de Saúde, 2005). The average age was 26 years lower than that found by Samantha Tam et al. The mean age was 26 years lower than that of Samantha Tam et al. (Tam et al., 2010) (33 years) and comparable to that of Da Lilly-Tariah OB and collaborator in Nigeria who found 27 (Da Lilly-Tariah & Somefin, 2007). This may mean, in part, that younger men tend to be more violent than older men and that violence tends to occur early in many relationships (Smith et al., 2019).

The most represented profession was that of pupils/students in 33.33% of the cases, closely followed by housewives (30%), probably related to the fact that they are generally without professional activities, therefore with no or little source of income and therefore dependent on their spouse or family member. The majority of our patients were married, contrary to the study by De CASTRO (Castro et al., 2017), where the majority were single (56%), which nevertheless corroborates the fact that the aggressors were more often spouses/partners and low-income victims. In Wong et al. it was mainly married and/or separated women who were victims and for 70% of the women it was not the first episode because 80% of them returned to the abuser for various reasons such as financial dependence, emotional dependence and protection of their children (Wong et al., 2014).

The predominant mode of aggression was slapping (76.67%), as in ODZILI F (Itiere Odzili et al., 2016).

The majority of patients came to the clinic for otalgia (30%) and hearing loss (30%) and the predominant physical sign was tympanic perforation (50%). The predominant otological symptomatology can be explained by the fact that the ear is one of the most exposed organs during a slap, due to the fragility of its anatomical structures.

Auditory sequelae such as conductive deafness due to tympanic perforations were recorded as in ODZILI F. (8.86%) (Itiere Odzili et al., 2016).

Tympanoplasty could not be performed due to lack of financial means (13.33%), as the patients and their spouses had low incomes.

The victims were all psychologically affected, each to varying degrees, but we recorded 1 case of divorce after the attack and 2 divorces, a pattern also observed in Itiére who also reported a case of depression (Itiere Odzili et al., 2016). At the time of the study, some of them were able to benefit from psychological support. Today we can note a great improvement in this sense because there is a permanent structure of psychological support and even judicial to help these victims. This is of paramount importance because several studies show that gender-based violence has an enormous emotional impact on the victims (Fryc et al., 2022).

## 5. Conclusion

Head and Neck injuries during gender-based violence occur at the otological and facial level. The after-effects remain auditory and psychological. These traumas affect a relatively young population of varying socioeconomic levels, posing a problem of psychological care and integration of women into socio-professional activities that promote autonomy and independence.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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