

# An Analysis of Medicolegal Reporting in Workman Injuries Referred for Medicolegal Examination in a Tertiary Care Hospital of Sri Lanka

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## Abstract

**Introduction:** A reasonable number of workman injuries are reported for medicolegal examination every year. In addition to report on the degree of severity and consistency of the injuries with the historical evidence, the medical officers are expected to opine on degree of disability as well. However, routine Medicolegal Examination Form or Report used in Sri Lanka to report these cases does not carry a section for disability or impairment. **Objective:** To gain an insight into the pathology of workplace injuries and to evaluate the role of medicolegal examination and reporting among the victims presented with injuries at work. **Methods:** A retrospective descriptive study was carried out on workmen who were referred for medicolegal examination during a period of 5 years in a Tertiary Care Hospital in the Western Province of Sri Lanka. **Results:** Out of 172 subjects who got injured at work, none had claimed for a report of compensation. 47% (81) of the injured workers were in the age group of 19–30 years. 81% (139) were males. Factory workers were the most vulnerable workers (34%) followed by drivers (15%). A majority 39% (67) of injuries were located on upper limbs. 52% (90) of the victims had grievous injuries. However, a majority 61% (105) had no permanent disability. **Conclusions:** Disability is not a direct reflection of the category of hurt. Therefore, testifying on routine medicolegal reports on cases of workman compensation will not serve justice to the patient.

**Keywords:** Category of hurt, disability, injury, medicolegal examination, workman

## INTRODUCTION

Anybody who suffers from an accident, injury, or disease due to their occupation is eligible for compensation awards and medical care that is paid by the employer according to the workers' compensation laws of the country. Injuries due to workplace accidents are on the rise worldwide.<sup>[1]</sup> However safe the workplace may appear to be, there are chances of getting injuries due to various reasons and circumstances.

Workplace injuries are of different categories depending on their nature and the place at which they occurred. These include machinery injuries which are found to be the most serious injuries of all workplace injuries. Commonly encountered injuries are loss of limb after an accident with heavy machinery, cuts or burns, and serious injury due to defects in the machine. With the establishment of the Free Trade Zone

in Sri Lanka, injuries caused in a factory setup, especially injuries to the digits, increased. Some of the commonly claimed injuries of construction workers are forklift accidents, heavy machinery handling injuries, falling from height or tissue trauma, and cuts or burns. At a glance, one may not consider driving-related injuries as workmen injuries. However, incidents like forklift accidents and pallet truck accidents along with injuries occurring due to poor maintenance of the vehicle and excessively long hours of working can be included as driving-related worker injuries that can be claimed for compensation. Though apparently safe, there are worker injuries that are reported from office setups as well. Repeated

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strain injury, injuries caused by defective seating, trips, falls or slips, injuries due to poorly maintained office equipment, cuts or burns, and injuries due to lifting heavy items are all grouped in this category. Injuries resulting from trips or slips, forklift accidents, pallet truck accidents, falling from a height, and handling injuries are frequently seen in workers in a warehouse. Sometimes workers can be brought in with chronic pain from repeated strain.

An injury or pathological process that affects an employee as a result of an event at work can be claimed for compensation according to international laws.<sup>[2]</sup> The occurrence must be unexpected to be considered accidental in the context of compensation.<sup>[3]</sup> However, if an injury is sustained as a result of conduct not expected from the employee, coverage under workers' compensation will be denied.<sup>[4]</sup>

When a worker is injured and there is evidence of drugs and/or alcohol in his system, the question is often whether the injury was the result of employment or the result of being under the influence of the aforementioned. Similarly, injured workmen may suffer from preexisting medical conditions. Preexisting disease is not a bar to compensation when the injury is a direct result of the nature of the accident.<sup>[5]</sup> However, compensation has been denied when a preexisting disease had contributed to the accident.<sup>[6]</sup>

Disability resulting from injuries to the young, working people is a burden to the country as well as to the family of the individual. There are a reasonable number of workmen's injuries that are reported for medicolegal examination every year. The role of the medicolegal examination in these cases is to report on the degree of disability and the consistency of the injuries with the historical evidence in addition to categorizing the injuries for their severity. However, routine Medicolegal Examination Form (MLEF) or Report (MLR) does not carry a section for disability or impairment. Even though the disability assessment has to be done once the patient is fully recovered, workmen are often referred for medicolegal examination with the intention of disability assessment for the purpose for compensation. Further, the clinicians who evaluate the patient for treatment purposes are often reluctant to submit reports or to participate in court trials. However, in the absence of the need to comment regarding disability in the MLEF, medical officers often fail to review these patients and to educate the patients regarding the possibility of claiming compensation. According to hospital statistics in Sri Lanka, in the year 2000, 16% of admissions were due to injuries. However, on analysis, there were no recorded occupational injuries.<sup>[7]</sup> This highlights the under reporting of these cases. On the other hand, there are no published studies on incidents, distribution, and pathology of workmen's injuries in a medicolegal context in Sri Lanka.

## OBJECTIVES

To gain an insight into the pathology of workplace injuries and to evaluate the role of medicolegal examination and reporting

according to the existing practice among the victims presented with injuries at work.

## METHODS

A retrospective descriptive study was carried out on workmen who were referred for medicolegal examination during a period of 5 years in a Tertiary Care Hospital in the Western Province of Sri Lanka. Case notes (Medicolegal notes) of abovementioned patients were reviewed and the data was entered in a performa and analyzed using the Statistical Package for Social Sciences (SPSS).

## Ethical issues

This study received ethics approval from the Ethics Review Committee of the Faculty of Medicine, University of Kelaniya, Sri Lanka on 6<sup>th</sup> August 2011.

## RESULTS

Among the total of 172 workers, there were 139 (81%) males and 33 (19%) females. 81 (47%) were of the age group of 19 to 30 years followed by 55 (32%) of the age group of 31 to 50 years. There were 14 children (in the age group of 14 to 18 years), while 15 were in the age group of 51 to 60 years. 7 workers were senior citizens (above 60).

There were 58 (34%) factory workers, 28 (16%) drivers, 17 (10%) construction workers, 9 (5%) hospital workers, and 60 (35%) others in the group.

Injuries were located in the upper limbs in a majority of 67 (39%) followed by those to the head in 53 (31%) [Table 1].

**Table 1: Location of the injury**

Location	Number	Percentage
Head	53	31
Torso	17	10
Lower limb	30	17
Upper limb	67	39
Other	5	3
Total	102	100.0

**Table 2: Nature of the injuries**

Type of injury	Number	percentage
Amputations	26	15
Crush injury	10	6
Burns	31	18
Incised wounds (cut/stab/prick)	7	4
Laceration	24	14
Fracture	36	21
Paralysis	7	4
Electrocution	14	8
pain and psychological effects	2	1
Other	15	9
Total	172	100

There were 36 (21%) fractures, 31 (18%) burns, and 26 (15%) amputations when the nature of the injuries was analyzed [Table 2].

Out of 58 factory workers, 38 (66%) had injuries to upper limbs, while there were 10 workers with head injury. Out of 17 construction workers, 9 (52%) had head injuries. 8 of 28 drivers had head injuries, while there were 10 with lower limb injuries [Table 3].

Out of 58 factory workers, 14 had traumatic amputations, while there were 10 fractures. There were 7 victims with fractures and 6 victims with lacerations among the construction workers. 13 out of 28 drivers had burns.

At the initial reporting, there was no mentioning about the degree of disability but on medicolegal category of hurt. Out of 172 workmen in the study group, 34 factory workers, 12 drivers, 9 construction workers, and 14 others had permanent impairment of their capacity. 33 out of 58 factory workers had some form of disability. 9 out of 17 construction workers and 12 out of 28 drivers also had some form of permanent disability. Degree of disability was more than 50% among 7 factory workers, 4 construction workers, 2 drivers, and 1 other. Degree of disability was less than 20% among 17

factory workers, 4 construction workers, 7 drivers, and 7 others [Table 4].

23 out of 36 workmen with fractures had no remaining disability. 4 out of 26 workers with amputations had more than 51% disability, 9 had 21%–50% disability, and 1%–20% disability was seen in 13 victims with amputations.

90 (52%) of the victims had grievous (Gr) injuries, while there were 15 (9%) injuries that came under the category of endangering life (EL), 10 (6%) under fatal in the ordinary course of nature (FION), and 57 (33%) nongrievous injuries (NG).

Out of 90 victims with grievous injuries, a majority of 40 had no disability, 31 had less than 20% disability, 12 had disability of 21%–50%, 5 had 51%–75% disability, and 2 had 76%–100% disability. 4 out of 15 victims who suffered from injuries that endangered life had no disability and 4 out of 10 victims of injuries that were fatal in the ordinary course of nature had no remaining disability.

All 15 victims with less than 10% disability were of the grievous category. Among the 20 victims with 10%–20%

**Table 3: Location of injury in different types of workers**

		Head	Torso	Lower limb	Upper limb and hand	Other
Factory	Count	10	2	5	38	3
	% within type of workplace	19%	3%	9%	66%	3%
Construction site	Count	9	3	3	2	0
	% within type of workplace	33%	22%	22%	22%	0%
Driver	Count	8	1	16	3	0
	% within type of workplace	37.5%	6.2%	37.5%	19%	.0%
Office	Count	0	0	1	1	0
	% within placement of injury/ injuries	.0%	.0%	.0%	7.1%	.0%
Hospital	Count	4	2	1	2	0
	% within type of workplace	20%	40%	.0%	20%	20.0%
Other	Count	22	9	4	21	2
	% within type of workplace	42%	13%	21%	24%	.0%
Total	Count	53	17	30	67	5
	% within type of workplace	31%	11%	52%	14%	2.0%

**Table 4: Degree of disability among different workers**

	Degree of disability	0	<10%	10-20%	21-50%	51-75%	76-100%	Total
Factory	Count	25	10	7	9	5	2	58
	% within type of workplace	47%	9%	13%	19%	9%	3%	100.0%
Construction site	Count	8	2	2	1	2	2	17
	% within type of workplace	.0%	11%	11%	.0%	11%	11%	100.0%
Driver	Count	16	1	6	3	1	1	28
	% within type of workplace	75%	.0%	13%	6%	.0%	6%	100.0%
Hospital	Count	9	0	0	0	0	0	9
	% within type of workplace	100%	.0%	.0%	.0%	.0%	.0%	100.0%
Other	Count	47	2	5	5	1	0	60
	% within type of workplace	64%	2%	8%	10.0%	8%	8%	100.0%
Total	Count	105	15	20	18	9	5	172
	% within type of workplace	61%	5%	10%	11%	7%	6%	100.0%

disability, there were 16 grievous injuries and 4 endangering life injuries. There were 12 grievous injuries, 3 endangering life injuries, and 3 fatal in the ordinary course of nature injuries among the victims with 21%–50% disability. 5 grievous injuries with 2 each with endangering life injury and fatal in the ordinary course of nature injury were found among the victims with 51%–75% disability. In the group with 76%–100% disability, 2 each with grievous and endangering life and 1 fatal in the ordinary course of nature injuries were observed [Table 5].

None of these victims had claimed for a report of compensation.

## DISCUSSION

Majority of the injured workers were young males. Young males sustained occupational injuries at about twice the rate of young females in New York State.<sup>[8]</sup> Involvement of young males in high-risk occupations, unsafe work behaviors, attitudes, and practices, or protective measures not being utilized are identified risk factors for young people.<sup>[9]</sup> Factory workers were at higher risk of occupational injuries followed by drivers. Many studies reveal that sleeping disorder, job stress, and job dissatisfaction are the major risk factors for the occurrence of occupational injuries among industrial workers.<sup>[10,11]</sup> There are an unlimited number of hazards that can be found in almost any workplace including obvious unsafe working conditions, such as unguarded machinery, slippery floors, or inadequate fire precautions which need proper and serious attention. Inexperience, characteristics associated with youthful age, and the interaction between these two are identified risk factors for motor vehicle accidents.<sup>[12]</sup> In addition, defective vehicles and roads, and overworking are also identified as risk factors.<sup>[13]</sup> A majority of the injuries were observed in upper limbs and they were commonly seen in factory workers. They were at risk of getting traumatic amputation of hands. This indicates the risk associated with handling these machines. Impairment and disability are not the same.<sup>[14-19]</sup> An individual can be impaired significantly and may have no disability. Disability is based on the type of employment. The degree of impairment is assessed by reference to the impact of the loss on the normal efficient functioning of the whole person.<sup>[20-23]</sup> The table in the workmen's compensation act of Sri Lanka gives percentage of loss of "earning capacity" or disability per injury.<sup>[2,23]</sup> However, there is no consideration of the type of employment. Justice in using a common table to assess the degree of disability on a man who is purely dependent on fingers for his employment is questionable.

**Table 5: Category of hurt vs. degree of disability**

Category	<10	10-20	20-50	50-75	75-100	No	Total
NG						57	57
Gr	15	16	12	5	2	40	90
EL		4	3	2	2	4	15
FIOCN			3	2	1	4	10
Total	15	20	18	9	5	105	172

Grievous injuries were recorded among 52% of the victims, while there were endangering life and fatal in the ordinary course of nature injuries, respectively, in 9% and 6%. The category of hurt is not a direct reflection of impairment or disability. This was clearly shown in the study, where we found many victims from the grievous category had no disability. Similarly, 4 out of 15 victims suffering from injuries that were endangering life had no disability and 4 out of 10 victims of injuries with fatal in the ordinary course of nature had no remaining disability. Many fractures although considered grievous have no resultant permanent disability. On the other hand, as shown in the study, with the highest degree of disability, medicolegal category of hurt may vary from grievous to fatal in the ordinary course of nature.

Initial opinion given to the police was concentrated mainly on medicolegal category of hurt and no mentioning was done on degree of disability. None had claimed for a report of workman's compensation. This further highlights the importance of having a separate space for opinion on degree of disability following a review in the MLEF and MLR.

## CONCLUSIONS

Young males and factory workers were at high risk of work-related injuries. A majority of the work-related injuries were observed in upper limbs and the nature of the injuries in majority was amputations. The study clearly showed that there is no association of the category of hurt with the degree of disability. Further, there was no due consideration to the type of work when disability is assessed. This highlights the importance of having a separate opinion on the degree of disability at the medicolegal examination and necessary revision to the workmen's compensation act to include consideration to the type of work in assessing disability.

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## Conflicts of interest

There are no conflicts of interest.

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