

#### Research

# PATTERN OF MEDICO-LEGAL CASES ADMITTED IN CRITICAL CARE UNIT OF RURAL TERTIARY CARE HOSPITAL -A RETROSPECTIVE STUDY

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Corresponding Author: **Dr. Akshaya N. Shetti,** Email: aksnsdr@gmail.com ORCID: 0000-0002-4688-8071

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Ravikiran Nale<sup>1</sup>, Narendrakumar C Landge<sup>1</sup>, Vinit C. Sukhatankar<sup>1</sup>, Akshava N. Shetti<sup>2</sup>, Rachita G Mustilwar<sup>3</sup>

<sup>1</sup>Associate Professor, Department of Anaesthesiology and Critical care, Dr Balasaheb Vikhe Patil Rural Medical College, PIMS (DU) Loni, Maharashtra, India

<sup>2</sup>Professor, Department of Anaesthesiology and Critical care, Dr Balasaheb Vikhe Patil Rural Medical College, PIMS (DU) Loni, Maharashtra, India

<sup>3</sup>Lecturer, Department of Periodontology, Rural Dental College, PIMS (DU), Loni, Maharashtra, India.

#### Abstract

**Background:** Tertiary care hospitals are bound to provide all type of services whether it is Medico-legal or non-Medico-legal. The medico-legal cases are seen all part of the India but very few details are available with respect to rural part of India. The objective is to determine the pattern, type and outcome of Medico-legal cases admissions rural tertiary care center located in India. Materials and Methods: This retrospective study was conducted and patient details were obtained who got admitted between 1st January 2020 and 31st Dec 2021. Data obtained was analyzed using appropriate tests. Result: A total of 774 patients got admitted in our rural tertiary care hospital and 773(95%) patients were from rural area. Most common age group was found between 25 to 50 years and 441 (56.98%). Various types of patients got admitted among them single most common disorder was organophosporus poisoning patient 151(19.51%). Majority of the patients were male 752 (97.16%), Majority of the patient got treated and shifted to general ward 580(74.94%). Majority of the patients, i.e 323 (41.2%) got admitted between 8.00Pm to 8.00am. Conclusion: In rural tertiary care unit predominantly male patients aged between 25 to 50 years were most commonly admitted, especially in the night time and overall outcome was found to be good.

## **INTRODUCTION**

Medico-legal patients are most commonly getting admitted in any tertiary care hospitals. In any patient is the injury or any act of criminality is involved or suspected then it should be called as medico-legal case. [1] The critical care area and the casualty trauma ward are the heart of the hospital. It is important to understand that every doctor and the nurse are aware of medico-legal aspects and should never do mistakes. All Medico-legal cases should be taken seriously and one should follow the legal aspects. There is always a chance that the patient or the relatives may claim against the doctor in certain cases, hence it is recommended to follow the instructions or the laws put forth by the central or state government. One should avoid unnecessary medico legal issues by preventing or taking care from negligence.[2] The objectives of this study were to identify the pattern and frequency of medico-legal cases getting admitted in rural tertiary care hospital.

We also identified the possible age group who are vulnerable to this and time of admission and the outcome the patients.

# **MATERIALS AND METHODS**

This retrospective study was conducted in a rural tertiary care unit of 50 bedded critical care unit. The study period was 6 months wherein the samples were collected from 1<sup>st</sup> of January 2020 till 31<sup>st</sup> December 2021. Any patient aged more than 12 years, who got admitted in this time period with labeling as Medico-legal cases were included. Patients who were brought dead and who were referred from the other hospital were not part of the study.

## **RESULTS**

A total of 774Medico-legal patient got admitted in the critical care unit between 1st January 2020 and 31<sup>st</sup> Dec 2021, out of which 752(97.12%) patients were male and remaining 22(2.84%) patients were female. 773(95%) patients were from rural area and remaining patients were from urban area. Various age group patients were admitted, out of which 26-to-50-year age group patients were 441 (56.98%). Most common admission was noted during night hours i.e 323 (41.73%) patients got admitted between 8.00Pm to 8.00Am. Various disease profiles were noted among Medico-legal patients who got admitted. Among all single most common disease noted was organophosporus patients which counted for 151(19.51%) patients. Majority of the patient got treated and shifted to general ward 580(74.94%) i.e with good outcome. (Figure 1-6)

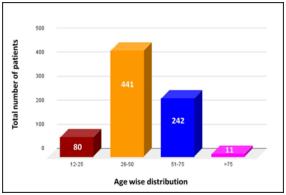


Figure 1: Age wise distribution

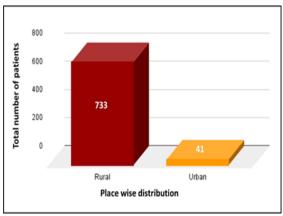


Figure 2: Place wise distribution

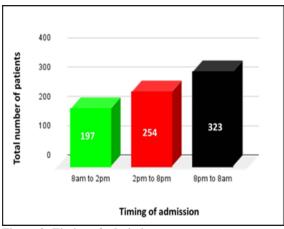


Figure 3: Timing of admission

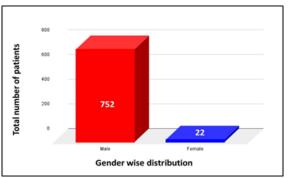


Figure 4: Gender wise distribution

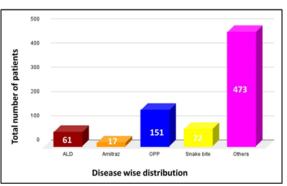


Figure 5: Disease wise distribution

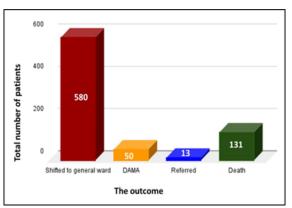


Figure 6: Outcome of the patients

# **DISCUSSION**

Medicologal aspect is one of the vital components of any tertiary care hospital. This helps in providing justice to the victim. There are various reasons why the patients are labeled as Medico-legal case viz, unknown bite or snake bite, suspected foul, poisoning cases, and road traffic accident cases, suicide or attempted to murder, assault, death within 48 hours of hospitalization with unknown reasons etc. [3,4,5,6] As per the Indian laws if any patient fulfills above criteria they should label patient as Medico-legal case. Police information is submitted about the patient admission in the hospital. Being in rural area we received 774 patients in our tertiary care center. Since the hospital is located in rural area it is not unusual to see rural patient getting admitted in our hospital. Majority patients' i.e 95% patients were from rural area only. Various patients from different age group got admitted in the hospital but 26-to-50-year age group patients were very common. This is mainly because these age groups patients are main working people in the rural area and are more prone for poisoning since most of the working populations are farmers. It was seen that males are admitted in majority when compared to the females. Our data has similar findings conducted by Gupta and Siddappa et al. [7.8] The similar study conducted by the malik et al and Ahmad et al showed there is an increased number of male patients getting admitted under the medico-legal category. [9,10] Among all admissions the single most common cause was organophosporus poisoning patients who accounted for 151 (19.51%). The reason could be, as said above majority population do farming and use insecticides in the farm. There are high chances that person may get exposed to multiple insecticides. We also had good number of snake or suspected snake bite patients. Other cause for Medico-legal cases were unknown cause for loss of consciousness, suicidal attempt, assault and non organophoshorus poisoning patients. We have seen there is an increased trend in patients getting admitted in night hours which may be due to lack of major facilities in the surrounding area during night hours and patients are by default getting admitted to our tertiary care hospital. Even though the patients were admitted in our rural hospital with limited resources we could justify the good outcome of patients ie. 580(74.94%). Nearly 50 (6.42%) of the patients took discharge against medical advice. This finding is similar to the study conducted by Jagtap N et al.[11] We observed ICU mortality in 131 (16.9%) patients and this is very in line with study conducted by Divatia et al.[12]

### Limitations of the Study

This is a single center study and hence cannot be generalized. A further multicentric prospective study may yield a beneficial report. Since the burn patients were directly referred to the burn unit or ward those patients were not included in this study.

#### **CONCLUSION**

In our rural tertiary care unit predominantly male patients aged between 25 to 50 years were most commonly admitted, especially in the night time and overall outcome was found to be good. It is important to note that the healthcare services should be very active and should have good human resources in the night hours in comparison to day time.

#### REFERENCES

- Tajammul N, Chaudhry TH, Hanif S, Bhatti MA. Profile of medico legal cases at Jinnah Hospital Lahore. Ann King Edward Med Uni. 2005;11(3):332–335.
- Raveesh BN, Nayak RB, Kumbar SF. Preventing medicolegal issues in clinical practice. Ann Indian Acad Neurol. 2016;19(Suppl 1):S15-S20. doi: 10.4103/0972-2327.192886.
- Richharia HH, Verma RS, Choubey PC. A comprehensive review of medicolegal procedures in service hospitals. J Acad Hosp Adm. 1993;5(2):29-32.
- Bimenya GS, Bhootra BL, Mukasa N. Forensic medicine services in Uganda--present and future. J Clin Forensic Med. 2005;12(2):81-4. doi: 10.1016/j.jcfm.2004.08.004.
- Payne-James JJ, Anderson WR, Green PG, Johnston A. Provision of forensic medical services to police custody suites in England and Wales: current practice. J Forensic Leg Med. 2009;16(4):189-95. doi: 10.1016/j.jflm.2008.09.002.
- Sandeep KS, Ranjit TM, Deshpande VL, Dilip WR. Profile of Medico-Legal Cases at a Tertiary Care Hospital in Ahmednagar, Maharashtra. Indian J Forensic Med Pathol. 2015;8(4):113–115.
- Gupta A, Singh BK. Pattern of Medico-legal Cases in a Tertiary Care Hospital in North India. IAR J Med Sci. 2021;2(4):56-58.
- Siddappa SC, Datta A. A study pattern of medico-legal cases treated at a tertiary care hospital in central Karnataka. Indian J Forensic Comm Med. 2015;2(4):193-7.
- Malik R, Atif I, Rashid F, Abbas M. An analysis of 3105 Medico Legal Cases at Tertiary Care Hospital, Rawalpindi. Pak J Med Sci. 2017;33(4):926-930. doi: 10.12669/pjms.334.11696.
- Ahmad I, Seema N, Shafi S, Salim M. Frequency and types of bodily medico-legal injuries in an urban area. J Ayub Med Coll Abbottabad. 2012;24(3-4):117-9.
- Jagtap N, Patekar MB. Study on pattern of Medico-legal cases in casualty of government medical college Kolhapur Maharashtra. IP Int J Forensic Med Toxicol Sci. 2021;6(3):75-77.
- Divatia JV, Amin PR, Ramakrishnan N, Kapadia FN, Todi S, Sahu S, et al. Intensive Care in India: The Indian Intensive Care Case Mix and Practice Patterns Study. Indian J Crit Care Med. 2016;20(4):216-25. doi: 10.4103/0972-5229.180042.