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STUDY OF CLINICAL PROFILE AND HEALTH CARE ISSUES OF PROTESTORS BROUGHT TO TERTIARY TEACHING HOSPITAL, DURING MARATHA RALLY IN MUMBAI

Community Medicine

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ABSTRACT

Background: Mass gatherings, including political rallies, pose significant public health challenges due to overcrowding, poor sanitation, and limited access to healthcare. The Maratha Rally in Mumbai (August–September 2025) was one of the largest political gatherings in recent years. This study aimed to evaluate the clinical profile and healthcare issues of protestors presenting to a tertiary teaching hospital during the event. **Materials and Methods:** A prospective observational descriptive study was conducted at a tertiary-care public teaching hospital in South Mumbai during the rally period (29 August–2 September 2025). Data were collected from emergency, outpatient, and inpatient records. Variables analysed included demographic profile, presenting complaints, management, and outcomes. Descriptive statistics were applied, and results were expressed as frequencies and percentages. **Results:** A total of 249 protest-related patients were included: 224 outpatients and 25 inpatients. All were male, with mean ages of 34.2 ± 11.8 years (outpatients) and 42.9 ± 16.5 years (inpatients). Acute febrile illness (AFI) was the most common presentation (19.6% outpatients, 40% inpatients), followed by pain-related complaints (22.8%), trauma (13.4%), and fatigue (9.4%). Management was mainly supportive with IV fluids, antipyretics, and analgesics. Among admitted patients, 68% opted for discharge against medical advice (DAMA). **Conclusion:** The Maratha Rally caused a significant surge in healthcare utilization, mainly for febrile and trauma-related conditions. The findings emphasize the importance of preparedness, dedicated triage systems, and rapid medical support during large public gatherings and political rallies.

KEYWORDS

INTRODUCTION

Mass gatherings, whether religious, cultural, sporting, or political, pose major public health challenges due to crowding, constrained facilities, and prolonged exposure. Such settings increase the risk of infectious disease transmission, heat-related illness, trauma, and sudden surges in hospital utilization [1,2] Events like the Kumbh Mela have demonstrated predictable syndromic patterns including respiratory, gastrointestinal, and febrile illnesses, while also highlighting the role of surveillance systems and temporary care facilities in mitigating risks.[3,4]

Political protests share these features, with overcrowding, poor sanitation, and limited healthcare access contributing to dehydration, respiratory and gastrointestinal complaints, and trauma. Hospitals located near protest sites often face rapid increases in outpatient visits, ambulance arrivals, and admissions. [5,6] Despite this, peer-reviewed Indian literature documenting the direct impact of protests on hospital workload remains scarce.

The Maratha Morcha in Mumbai (August–September 2025) was among the largest political protests in recent years, drawing thousands of participants to Azad Maidan. On-site medical camps reported treating more than 2,300 cases, predominantly viral fever, throat infections, and dehydration.[7] City hospitals, including Gokuldas Tejpal (GT) Hospital, were placed on alert and experienced a surge in patient volume. [8–11] Conditions at protest camps, such as crowding, outdoor cooking, and overnight stays, further predisposed participants to illness.[12]

National frameworks from NDMA and MoHFW emphasize preparedness for health risks during mass gatherings, yet political protests are underrepresented in these guidelines.[13,14] Tertiary hospitals remain crucial in managing such surges, but there is little systematic data from India to inform preparedness strategies.

Accordingly, this study aimed to describe the demographic and clinical profile of protest-related patients presenting to a tertiary care public teaching hospital in south Mumbai during the Maratha Morcha and to assess trends in healthcare utilization and hospital response.

OBJECTIVES

The objectives of this study were to:

1. Describe the demographic and clinical profile of patients.
2. Assess trends in presentations during the protest period.
3. Quantify resource utilization in terms of admissions and management provided.
4. Identify operational lessons to strengthen hospital preparedness for future protests.

MATERIALS AND METHODS

Study Design

This was a prospective, observational, descriptive study conducted at a tertiary-care public teaching hospital in South Mumbai. Similar observational designs have been employed in mass gathering health studies.[15,16] The study protocol was reviewed and approved by the Institutional Ethics Committee. As only anonymized hospital record data were analysed, a waiver of individual informed consent was granted.

Study Setting and Period

The study was carried out in the Emergency Department (ED), Outpatient Department (OPD), and inpatient wards of a tertiary-care public teaching hospital in South Mumbai. Data were collected during the Maratha Morcha protest period, from 29 August to 2 September 2025, corresponding to gatherings at Azad Maidan and adjoining areas. To streamline care, the hospital designated a separate OPD and ward area exclusively for protest-related patients to improve accessibility for participants unfamiliar with city health services.

Study Population

All protest-related patients presenting to a tertiary-care public teaching hospital in South Mumbai during the defined period were included. A case was considered protest-related if the patient:

1. Self-identified as a participant of the Maratha Morcha, or non-protest patients were excluded.
2. Was brought from the protest site by police, ambulance, or fellow protestors with complaints temporally or spatially linked to participation.

Inclusion Criteria

- Patients presenting from the protest site or self-reporting Morcha participation.
- Both ED and OPD visits.
- Protest-related inpatient admissions.

Exclusion Criteria

- Records missing key data (age, sex, presenting complaint).
- Routine follow-up visits or unrelated chronic conditions (e.g., scheduled dressings).

Data Collection

Data sources included ED and OPD registers, inpatient admission logs, triage sheets, case records, and nursing notes. Each patient was assigned a unique identifier, and duplicate entries were cross-checked. Extracted data included demographics, presenting complaints, provisional diagnosis, management provided, and outcomes.

Variables Studied

- Demographics: age, sex, residence (urban/rural).
- Clinical presentation: chief complaint, provisional diagnosis.
- Mode of presentation: walk-in, ambulance, police referral.
- Management provided: medical therapy, minor procedures, surgical interventions, referrals.
- Disposition: discharge, ward/ICU admission, transfer, death.
- Geographic distribution: district of origin within Maharashtra.
- Temporal trends: daily protest-related patient load.

Data Analysis

Data were entered into Microsoft Excel and analysed descriptively. Continuous variables were summarized as mean ± standard deviation (SD) or median (interquartile range, IQR) as appropriate. Categorical variables were expressed as frequencies and percentages. Temporal trends were visualized using line graphs. Such descriptive analytic approaches are standard in hospital-based studies of mass gatherings and protest health surveillance.[17,18]

RESULTS

Patient Flow

A total of 249 protest-related patients were included in the analysis, comprising 224 ambulatory patients from the OPD/ED dataset and 25 admitted to inpatient wards during the protest period. One additional patient was brought dead to the Emergency Department and referred to JJ Hospital for medicolegal postmortem examination. The daily patient load is shown in Figure 1.

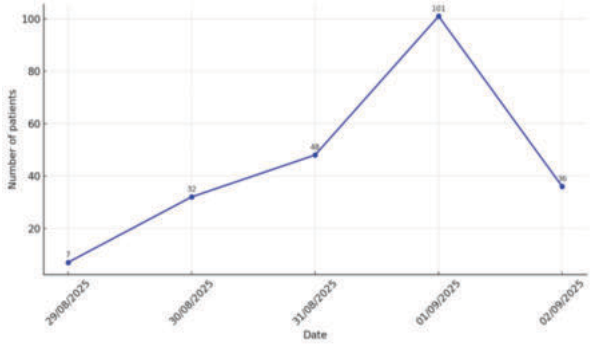

Figure 1. Daily Patient Load of Protest-related Cases Presenting to the Hospital During the Maratha Morcha (29 August–2 September 2025).

Demographics

All patients were male. The mean age of admitted patients was 42.9 ± 16.5 years (range: 20–79), compared to 34.2 ± 11.8 years (range: 17–77) among ambulatory patients. The largest proportion of cases belonged to the 20–40 years age group, consistent with young and middle-aged adults forming the bulk of protest participants (Table 1). The age group distribution between admitted and ambulatory patients is shown in Figure 2.

Table 1. Demographic Characteristics of Protest-related Patients Presenting to Hospital During the Maratha Morcha.

Dataset	No.	Mean Age (years)	Age Range (years)	Sex
General (Outpatient)	224	34.2 ± 11.8	17–77	All Male
Admitted	25	42.9 ± 16.5	20–79	All Male

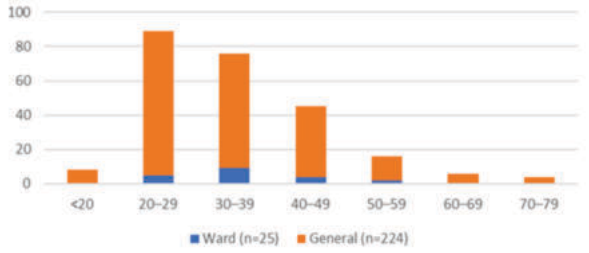

Figure 2. Stacked Bar Chart Comparing Age Group Distribution of Admitted and Ambulatory Protest-related Patients

Clinical Presentations

In the admitted cohort (n=25), the most frequent presenting complaint was acute febrile illness (AFI) (10/25, 40%), followed by chest pain (5/25, 20%), trauma (4/25, 16%), non-specific fever (3/25, 12%), and localized abscesses (3/25, 12%).

In the ambulatory dataset (n=224), the most common diagnoses were pain-related conditions (51/224, 22.8%), AFI (44/224, 19.6%), trauma (30/224, 13.4%), and fatigue (21/224, 9.4%). Other presentations included upper respiratory tract infections, acute kidney injury, and non-specific constitutional symptoms (Table 2, Figure 3).

Table 2. Clinical Presentations of Admitted Patients (n=25) and General Dataset Patients (n=224).

Clinical Presentation	Admitted (n=25)	General (n=224)
Acute febrile illness	40.0%	19.6%
Chest pain	Present	–
Fever (non-specific)	Present	–
Trauma	Present	13.4%
Localized abscess	Present	–
Pain-related conditions	–	22.8%
Fatigue	–	9.4%
Upper respiratory tract infection	–	Present
Acute kidney injury	–	Present
Non-specific symptoms	–	Present

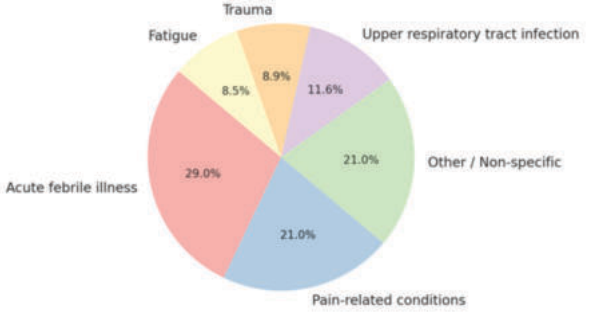

Figure 3. Distribution of Clinical Presentations Among Protest-related Patients.

Management

Management was predominantly symptomatic and supportive.

- Admitted patients (n=25): All received IV fluids, antipyretics, and supportive therapy. A large proportion subsequently opted for discharge against medical advice (DAMA).
- Ambulatory patients (n=224): The most frequently prescribed interventions were Injection Diclofenac (12/224, 5.4%), Injection Tetanus Toxoid (8/224, 3.6%), oral medications (5/224, 2.2%), and combination regimens such as Paracetamol + Pantoprazole + Ondansetron (4/224, 1.8%). Other supportive measures included analgesics, antipyretics, and oral rehydration solution in smaller numbers (Table 3).

Table 3. Summary of Management Strategies Administered to Protest-related Patients

Management Modality	Admitted Patients (n=25)	General Patients (n=224)
IV fluids	Predominant	–
Antipyretics	Predominant	–
Supportive therapy	Predominant	–
Injection Diclofenac	–	12
Injection Tetanus Toxoid	–	8
Oral medications	–	5
Pantoprazole + Paracetamol + ondansetron	–	4
DAMA (Discharge Against Medical Advice)	Large proportion	–

Outcomes

Among admitted patients, 17/25 (68%) left against medical advice within 24–48 hours, while 5/25 (20%) were formally discharged after treatment completion. One protester was brought dead to the Emergency Department and referred to JJ Hospital for medicolegal postmortem examination. No in-hospital mortality was recorded during the study period (Figure 4).

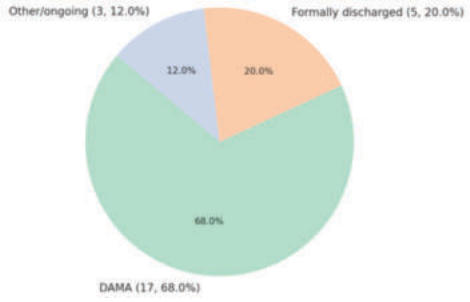

Figure 4. Outcomes of Admitted Protest-related Patients at the Hospital (n=25).

Geographic Distribution

Patients originated from multiple districts across Maharashtra. The largest numbers were from Beed (94/249, 37.7%) and Parbhani (55/249, 22.1%), together accounting for nearly 60% of the cohort. Other significant contributors included Jalna (19/249, 7.6%), Nanded (17/249, 6.8%), and Dharashiv (16/249, 6.4%). Smaller proportions came from Hingoli, Solapur, Sambhaji Nagar, Latur, Ahilya Nagar, Pune, Nashik, and Washim, with isolated cases from Parthan, Pattri, and Jalana. The geographic spread is illustrated in Figure 5.

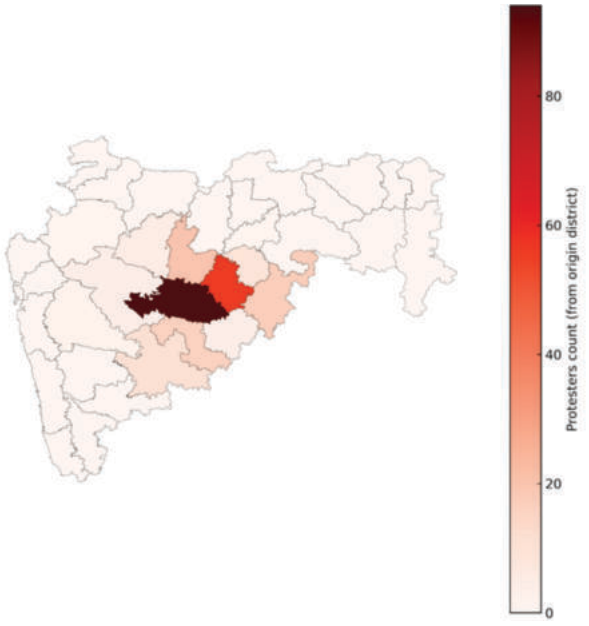

Figure 5. Heat Map of Geographic Distribution of Protest-related Patients Across Maharashtra.

DISCUSSION

Main Findings

This study is one of the first systematic hospital-based analyses of health utilization during a large political protest in India. A total of 249 protest-related patients were managed at a tertiary care public teaching hospital in south Mumbai during the Maratha Morcha, including 25 admissions. The cohort consisted exclusively of young adult males, with acute febrile illness (AFI) and pain-related conditions predominating. Trauma and fatigue were also common. Management was largely symptomatic and supportive. A striking observation was that 68% of admitted patients opted for discharge against medical advice (DAMA).

Comparison with Existing Literature

Our findings align with earlier mass gathering reports that highlight fever, trauma, and dehydration as the most frequent presentations [3,4,19]. At the Kumbh Mela, respiratory and gastrointestinal syndromes predominated, while heat-related illness was also a major concern [20]. At the Hajj pilgrimage, infectious respiratory clusters, crowd-related trauma, and heat stress have been repeatedly described [21,22]. In contrast, political protest settings in India remain under-studied; however, limited analyses indicate that sudden surges in patient load can significantly strain tertiary hospitals[23].

The Sterlite protest in Thoothukudi, Tamil Nadu, offers a relevant comparison, where respiratory, skin, and gastrointestinal complaints were linked to overcrowding and poor sanitary conditions [24]. Such parallels emphasize that political protests, though differing in context from religious gatherings, share similar operational health risks. International evidence also supports this view, with protest participants elsewhere demonstrating altered health-seeking behaviour and distinctive clinical spectra [25].

Unique Observations in this Study

The exclusive male representation and clustering in the 20-40 years age group reflect the demographic profile of active protest participants, in contrast to religious gatherings such as the Kumbh Mela, which draw broader age and sex groups [3,20]. The predominance of AFI likely relates to environmental exposures and sanitation at the protest site, where limited potable water, makeshift cooking, outdoor sleeping, and overcrowding created fertile ground for febrile and gastrointestinal illnesses. Heavy rainfall and cool, humid conditions recorded on 29 August 2025 may have further amplified infection risks and contributed to fatigue and exposure-related complaints [27].

Unlike many mass gathering reports that highlight sunstroke and heat-related illness as major concerns [20–22], no such cases were observed in this cohort. This may be explained by prevailing meteorological conditions, as the protest coincided with monsoon rains and relatively cooler temperatures. Nevertheless, heat illness remains an anticipated risk for future political protests held in summer or in regions with high ambient temperatures.

The unusually high DAMA rate is a particularly distinctive finding. It is plausible that once acute symptoms were relieved, patients prioritized rejoining the protest over medical continuity. Similar patterns have been described in protest settings elsewhere, where socio-political commitment influenced health-seeking behaviour [25].

Implications for Healthcare Preparedness

Hospitals in proximity to large protests must anticipate sudden inflows of young, otherwise healthy adults presenting with AFI, pain, trauma, and fatigue. Preparedness should emphasize rapid triage, adequate stocks of IV fluids and antipyretics, and readiness for trauma care. The high DAMA rate underscores the need for protocols enabling early symptomatic relief and rapid patient turnover, while maintaining safety.

To facilitate accessibility, a tertiary care public teaching hospital in south Mumbai allocated a separate OPD and ward area for protest-related patients, recognizing that many participants were from districts across Maharashtra and unfamiliar with city health services. This measure streamlined patient flow and reduced congestion in routine hospital services. In future protests, mobile health units and syndromic surveillance tools, as successfully piloted at the Kumbh Mela [3], could decentralize care and mitigate tertiary hospital overload. Importantly, ensuring adequate on-site amenities-safe drinking water, sanitation, shelter, and food hygiene should be prioritized by organizers and civic authorities to minimize risk of febrile and gastrointestinal illness, as observed in this cohort.

Strengths and Limitations

This study's strengths include being the first tertiary-care dataset describing the health impact of the Maratha Morcha, inclusion of both ambulatory and admitted patients, and integration of geographic distribution patterns. Limitations include its single-centre scope, restricting generalizability; exclusion of non-protest contemporaneous patients as a comparator; and the high DAMA rate, which limited follow-up of treatment outcomes. Nonetheless, the findings provide novel, operationally relevant insights into healthcare utilization during political protests.

CONCLUSION

The Maratha Morcha in Mumbai created a measurable surge in healthcare utilization at a tertiary care public teaching hospital in south Mumbai, with 249 protest-related patients managed over four days, including 25 admissions. The cohort was exclusively young adult males, predominantly presenting with acute febrile illness, pain-related complaints, trauma, and fatigue. Management was largely symptomatic and supportive, while a high proportion of admitted patients left against medical advice, reflecting the influence of socio-political priorities over medical continuity.

Hospital preparedness measures, including allocation of a dedicated OPD and ward for protest-related patients, improved accessibility for participants from across Maharashtra. These findings emphasize the need to incorporate political protests into existing mass gathering preparedness frameworks, with strategies such as rapid triage systems, mobile health support, and surge-capacity planning to strengthen resilience of urban tertiary hospitals.

DECLARATIONS

Ethics approval and consent to participate: The study protocol was reviewed and approved by the Institutional Ethics Committee. As only anonymized hospital record data were analysed, a waiver of individual informed consent was granted.

Consent for publication: Not applicable.

Availability of data and materials: The datasets generated and analysed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare no competing interests.

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