DOI: 10.21276/sjams.2017.5.1.11

Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2017; 5(1A):57-61 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublisher.com

Original Research Article

Study of demographic profile of unidentified dead bodies in central Mumbai region

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Abstract: Mumbai tops the national charts in disposing of unclaimed bodies. Unidentified bodies impose great challenge to autopsy surgeon. In recent years there is increased in number of unidentified dead bodies in central Mumbai region. Aim of our study is to find out most common age group, sex, method of identification, place where the body recovered and cause of death in unidentified dead bodies. A total number of 109 cases were studied during period 2013-2015. Most common age group in unidentified dead bodies was middle age group 60.54% (41 to 60 year). Males (91.74%) preponderance observed in our study. Photographs were most commonly used for identification purposed. Most of the dead bodies were recovered from footpath (72.27%). Most common cause of death was related to pulmonary pathology (67.03%).
Keywords: Unidentified, Mumbai, middle age, identification, photograph, pulmonary, footpath

INTRODUCTION

Unidentified persons are people who have died and whose bodies have not been identified during autopsy. According to national crime record bureu a total of 34,592 unidentified dead bodies were recovered at all India level and necessary inquests as per the law were conducted by the police. Thus, the police had to conduct inquest for around 95 such cases everyday on an average at all India level. Some States reported higher recovery of un-identified dead bodies, these State were Maharashtra (6,187 victims), Tamil Nadu (3,739 victims), Karnataka (3,533 victims) Uttar Pradesh (3,409 victims), West Bengal (3,086 victims) and Delhi UT (3,063 victims) [1]. (Crime in India 2015, chapter 3 page no.66, 63 editions) July 2016

Mumbai tops the national charts in disposing of unclaimed bodies. Unidentified bodies are disposed of as per the provision laid under section 5 of the Bombay Anatomy Act of 1949 [2]. As Mumbai is the financial capital of India, having every facility to live dignified life. But Mumbai have also large number of unknown, unclaimed dead bodies. There is increase in number of unclammed /unknown dead bodies day by day in Mumbai. Increasing number of unknown dead body is also described as silent mass disaster. The identification of cadavers is a key issue in autopsy and equally important for ethical, criminal and civil reasons. Hence we conducted this study to focus on problems of unidentified bodies

MATERIALS AND METHOD

The present prospective study of postmortem examination of natural deaths in Unidentified, Unclaimed bodies brought to the mortuary of the department of Forensic Medicine & Toxicology, Seth G S Medical College & K E M Hospital, Parel, Mumbai; during the period from January 2013 to December 2015 comprised the material for the study. During this period the total 109 cases of natural deaths in unidentified were studied in central Mumbai region. Data regarding these cases was compiled from the postmortem reports, inquest papers; Hospital records, detailed history taken from investigating police officials at the time of postmortem examination, etc. All data related to these cases were compiled,analysed ,tabulated and paying

special attention to demogragraphics and other medico-legal perspectives like Gender, Age, Date of death, Date of post mortem examination; police jurisdiction where the body was found, the cause of death and the special identification marks noted down.

RESULTS AND OBSERVATIONS

As per figure no.1 most common age group involved in unknwon/unclammed deaths was 41 to 50 years 38 cases (34.86%) followed by 51 to 60 year 28 cases (25.68%) and least common was 0 to 10 (0%)and 11 to 20 year(0%). If we join fourth and fifth decade in unidentified person deaths then 66 cases (60.54 %%) were seen in this group which is middle age group. Table no.1 shows male predominance 100 cases (91.74) in our study as compared to females (8.26%). As per table no.2 most of the unknwon/unclammed deaths were in cold season 46 cases (42.20%) followed by summer 33 cases (30.27%) and least was in rainy season 30 cases (27.53%). Most common method of identification used in identified deaths was photograph 78 cases (72%) followed by tattoo and scar marks 18 cases(16%) , moles 11 cases (10%)and least was DNA fingerprinting (1%). According to place where unidentified dead bodies were found, most common place was footpath 79 cases (72.27%) followed by KEM campus 13 cases (11.98%), parel railway station 4 cases (3.66%) and least was wadala sky bridge 1(0.9%). Most common cause of death in unknwon/unclammed deaths were pulmonary tuberculosis 47(43.11%) followed by pneumonia 24(22.09%), septicemia 15(13.26%), cirrhosis of liver 09 (8.25%) and least was acute tubular necrosis 01(0.9%).

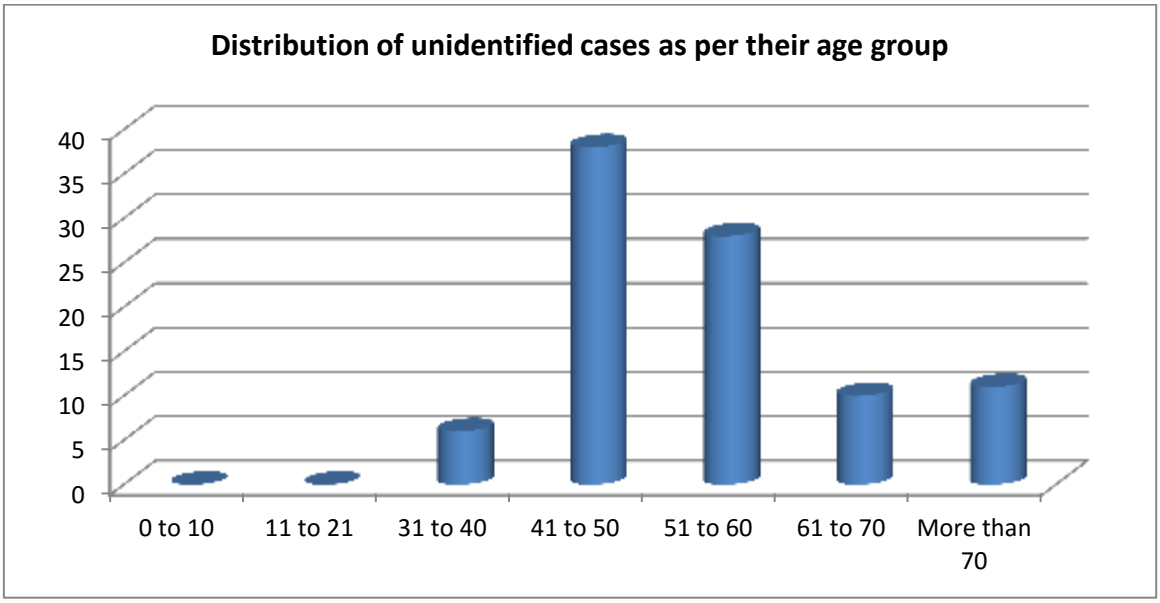

Fig 1: Shows Distribution of unidentified cases asp per their age group.

Table 1: Showing distribution of unidentified dead bodies according to sex

Sex	Total no. of cases (%)
Male	100 (91.74%)
Female	09 (8.26%)
Total	109 (100%)

Table 2: Showing distribution of unidentified cases deaths as per environmental season

Season	Total no. of cases (%)
Cold season	46 (42.20%)
Summer	33 (30.27%)
Rainy	30 (27.53%)
Total	109 (100%)

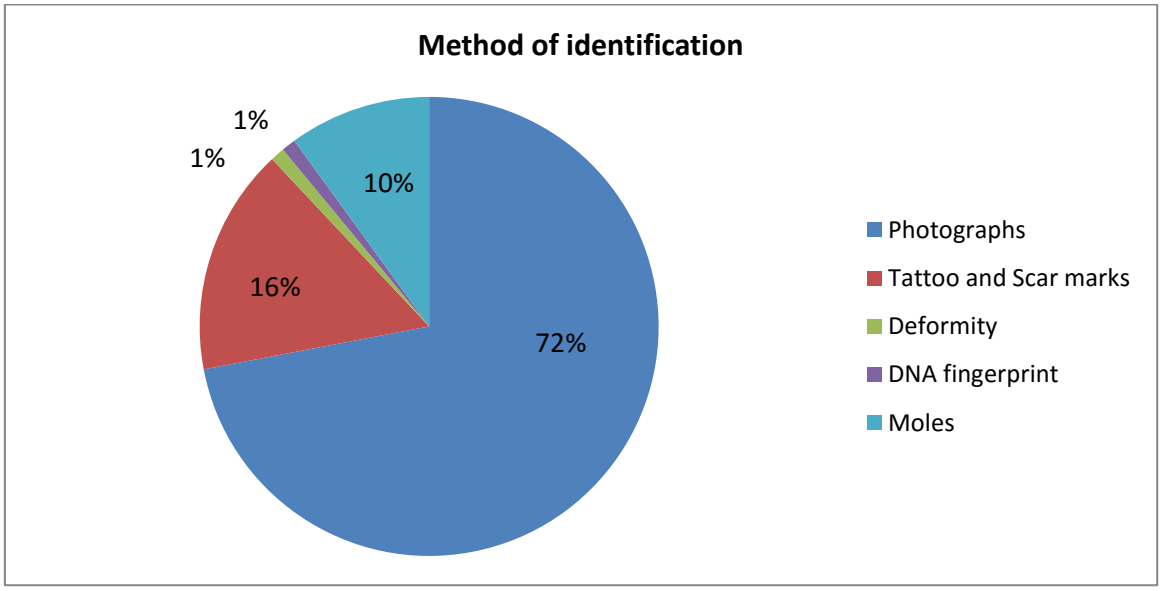

Fig 2: Shows method of identification used in identified cases.

Table 3: Showing distribution of unidentified cases as per place where they found

Place of found	Total no. of cases.
Footpath	79 (72.27%)
Garden	02 (1.83%)
KEM Hospital campus	13 (11.98%)
MGM Hospital	02 (1.83%)
Parel railway station	04 (3.66)
Sewree railway station	03 (2.84%)
Wadala sky walk bridge	01 (0.9%)
Not known	05 (4.58%)
Total	109 (100%)

Table 4: Showing distribution cause of death in unidentified cases

Cause of death	Total no. of cases (%)
Acute coronary insufficiency	05 (4.58%)
Acute tubular necrosis	01 (0.9%)
Cirrhosis of liver	09 (8.25%)
Intracranial haemorrhage	05 (4.58%)
Meningitis	01 (0.9%)
Lung abscess	02 (1.83%)
Septicemia	15 (13.26%)
Pneumonia	24 (22.09%)
Pulmonary tuberculosis	47 (43.11%)
Total	109 (100%)

DISCUSSION

Mumbai is the capital city of the Indian state of Maharashtra. It is the most populous city in India and the ninth most populous agglomeration in the world, with an estimated city population of 18.4 million [3]. Unidentified dead bodies have imposed big challenge to autopsy surgeon. These cases are silent mass disaster in society, which are neglected by society, police and hospitals. Special reference should be given to these cases.

Most common age group in unidentified cases were 41 to 51 year 38 (34.86%) followed by 51 to 60 years 28 (25.68%). If we combine the 41 to 50 and 51 to 60 age group then more than 60.54%% cases were belonging to 41 to 60 years which is middle age group. The reason might be due to the fact that the massive migration of people for search of job and livelihood. Also many intra-state migrations happen due to poverty and drought situations in Maharashtra. Majority of the people engaged as daily wage laborers or as beggars. Similar to present study, Chaudhary BL *et al.;* [4] found

that the most of the cases (27.36%) were in the age group of 40-49 years. As per study by Altun G *et al.;* [5] (27.95%) in 40 to 49 age group. While in Study of Kumar S. [6], the maximum numbers 47.24%) were in age group 41-60 years. Also as per study by Kumar A *et al.;* [7] most common age group in unknown cases were 41 to 50 years (35%). This might be due to the fact that the most mobile age group for various reasons, both economic and social.

Males 100 (91.74%) outnumbered the females 09 (8.26%) in our study. this might be due to the fact that males usually migrating for jobs in Mumbai city. Similar to our study, Chaudhary BL [4] *et al.;* found that in the deaths of homeless unknown persons (HUPs) with the predominance of male sex (90.25%), this might be due to the fact that most of the these cases were medicolegal hence male predominance. Another study in Mumbai by Wagmare *et al.;* [8] found that out of 51 cases 34 were identified as males. Likewise study of Kumar A *et al.;* [7] (87.75%) and study of Kumar S *et al.;* [6] (69.99%), carried out in Delhi and North India respectively found male predominance. The results were also in accordance to worldwide studies carried out by Altun G, *et al.;* [5] and Buyuk *et al.;* [9] that presented the preponderance of male cases (91.27%).

Majority of deaths in unknown cases were in winter season 46 (42.20%) followed by summer 33 (30.27%) and rainy 30(27.53%). Similar to our study, chaudhary *et al.;* [4] found that increase in the number (14.55%) of deaths in September month. Likewise Altun G, *et al.;* [5] reported the maximum deaths (59.38%) during winter season. Contrast to our study, findings in study of Philadelphia [10] shows that 53% of deaths were happened during summer months and additional Buyuk *et al.;* [9] reported that high percentages of the cases living in the open are every danger both environmental and criminal. On the other hand, in study of Kumar A *et al.;* [7] and Kumar S, *et al.;* [6] were highest number (38.64%) & (69.70%) respectively reported in rainy season (i.e. to be July to September in India). Kumar A et al [7] found that maximum number of cases observed in October month 12.2%. Reason might be a seasonal pattern of tuberculosis with a mostly predominant peak is seen during the spring and summer seasons in all of the countries.

Out of 109 cases 20 cases were identified. Among these cases photograph (72%) was most commonly used identification method followed by Tattoo marks and scar marks (16%). Moles were used in 10% of cases. DNA fingerprinting (1%) was least used method of identification. Majority of cases were remaining unidentified. This might be due to lack of coordination in police and autopsy surgeon, lack of used of modern technologies and interstate coordination. As per Kumar A *et al.;* [7] visible marks of identification were recorded (at least two) in 28% cases. Fingerprints are the gold standard for identification and hence, the pulps of the finger were removed and preserved in separate labeled bottles in formalin in 53% of the cases on the request of the police.

Most common place where unknown were founds were footpaths 79(72.27%) followed by KEM hospital campus 13(11.98%). Similarly study by Chattopadhya *et al.;* [11], found that 275 were found the city roads or adjacent footpaths. Reason might be that a good number of homeless people reside on the streets and are below the poverty line. Kumar A (7) an also reported almost similar findings from his study in South Delhi that about 32.2% were recovered from the river or its banks. Altun [5] reported that out of the 126 cases of deaths of homeless persons, 94 were found outdoors.

Majority of deaths were due to pulmonary tuberculosis 47(43.11%) followed by pneumonia 24 (22.09%), septicemia 15 (13.26%), cirrhosis of liver 09 (8.25%) and lung abscess 02 (1.83%). The pulmonary pathology (67.03%) was found as the foremost cause of death in our study. Similar to our study, Chaudhary *et al.;* [4] found that pulmonary pathology was leading cause of death and contributed 67.95% cases of total 71.56% of natural deaths. These findings are in concurrence with study of Kumar A *et al.;* [7] and Buyuk Y *et al.;* [9] where natural events were the main cause of death in 61.36% & 60.26% cases respectively.

CONCLUSION AND SUGGESTION

In present study majority of unidentified dead bodies were belonging to Middle age group 60.54% (41 to 60 year), males (91.74%), found on footpath (72.27%) and died due to Pulmonary pathology (67.03%). Even in 21 century still we are using basic technology for identification (photographs and fingerprinting). Used of modern technologies is a need of an hour. The center for identification should be established at various medical college with co-ordination of ministry of home affairs and medical education. Proper measures should be made for coordination between the police and autopsy surgeon to identify the unidentified persons.

REFERENCES

1. Crime in India 2015. New Delhi: Government of India, Minister of Home Affairs, National Crime Record Bureau Report 63th Edition; 2016 July: 66.
2. Bombay act no.xi 1949. Government of Maharashtra, law and judiciary department; Jan 2014: 1-6.
3. Mumbai Wikipedia [internet] 2016 [Cited December 2016] Available from https://en.wikipedia.org/wiki/Mumbai

4. Chaudhary BL, Kumar VR, Arvind K et al. An investigation in to the deaths of homeless unknown persons at New Delhi District. EC Pulmonology and Respiratory Medicine, 2016; 2(3):90-97
5. Altun G, Yilmaz A, Azmak D. Deaths among homeless people in Istanbul. Forensic science international. 1999 Jan 11; 99(2):143-7.
6. Kumar S, Verma AK, Ali W, Singh US. Homeless and unclaimed persons' deaths in north India (Jan 2008–Nov 2012): A retrospective study. Medicine, Science and the Law. 2014 Feb 17:0025802414523585.
7. Kumar A, Lalwani S, Behera C, Rautji R, Dogra TD. Deaths of homeless unclaimed persons in South Delhi (2001-2005): a retrospective review. Medicine, Science and the Law. 2009 Jan 1;49(1):46-50.
8. Waghmare PB, Chikhalkar BG, Nanandkar SD. Establishing Identity and Cause of Death in Mutilated and Un Identifiable Corpses: A Challenging Task for Medico Legal Expert. Journal of Forensic Biomechanics. 2015 Apr 4; 2015.
9. Büyük Y, Üzün İ, Eke M, Çeti G. Homeless deaths in Istanbul, Turkey. Journal of forensic and legal medicine. 2008 Jul 31; 15(5):318-21.
10. Hibbs JR, Benner L, Klugman L, Spencer R, Macchia I, Mellinger AK, Fife D. Mortality in a cohort of homeless adults in Philadelphia. New England Journal of Medicine. 1994 Aug 4; 331(5):304-9.
11. Chattopadhyay S, Shee B, Sukul B. Unidentified bodies in autopsy–A disaster in disguise. Egyptian Journal of Forensic Sciences. 2013 Dec 31; 3(4):112-5.