

Original Article

Study of Hindrances in Sustaining — Body Donation Programme in COVID-19 Era

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Rationality : During the COVID-19 pandemic, there has been widespread confusion regarding the acceptance of donated bodies, especially those of COVID-19 unknown status. The present study aims to (1) quantify the fall in the body donation in COVID pandemic times & (2) explore the perception of the recipients of body donation (Anatomy faculties) and the facilitators of body donation (NGO members), regarding the problems they faced.

Materials and Methods : A cross sectional study using a pre designed study schedule was conducted over period of two months. 30 Anatomy faculties from 3 Medical Colleges in Kolkata and 20 members from 2 NGOs were interviewed. The actual numbers of the body donation received has been documented from record in Anatomy Departments and actual numbers of the body donation facilitated by NGOs has been obtained from record maintained in NGO office. The responses were analysed accordingly.

Results : There was significant decline in body donation activity in all the Medical Colleges during COVID times. 80% Anatomy faculties and 60% NGO members recommended posthumous RTPCR tests for COVID-19 unknown bodies. 93.33% faculties and 60% NGO members also wanted the Government to publish directives for posthumous RTPCR tests in donor's body. Most faculties (83.33%) were unsure as to whether embalming fluid can neutralize COVID-19 virus or not.

Conclusion, Limitation & Future Scope : This study explored the hesitations, its causes and remedial measures of hindrances in body donation program in COVID times. Being an ICMR STS project, authors needed to wrap up it by only two months time; but it can be used as the pilot to continue same in larger scale. Further researches are required to assess the lethality of embalming fluid on COVID-19 virus in this perspective.

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Key words : COVID-19, Body donation, Lockdown times.

In the process of the "Body donation" after death, usually the body of the deceased is brought in the Department of Anatomy by his/her legal heirs. So the faculties/staff of the Anatomy Department remains in the recipient end of the Body Donation Programme, where the Society remains in donor end of the process. There are many Social Welfare Organizations who promote the Body donation service and they actively participate to coordinate the procedure.

According to a Government of India directive, embalming was debarred for known COVID positive bodies. So naturally for those bodies, donations have been halted. Donation of non-COVID deaths were attempted to avoid due to confusions, lack of knowledge, evidences among the recipients & donors¹.

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Editor's Comment :

■ The study demonstrated a significant fall of body donation in COVID-19 times. The cause of hindrances of the COVID-untested bodies was mainly lack of evidence of lethality of embalming fluid on Sars-CoV-2 virus and resulting fear of transmission from the Covid unknown cases. In the present day it is true that the COVID pandemic has passed away, but lessons we learnt can be utilized in future administrative planning.

Earlier studies revealed that most Universities refused Body donations and stopped all dissection research and training during that period²⁻⁴. Even we can see that there is much confusion prevailing around the question - whether embalming fluid can neutralize SARS-CoV-2 virus or not. Only if it does, the COVID-19 unknown bodies can be accepted directly without performing any posthumous test; in literatures as were searched for⁵⁻⁸.

Objective :

(1) To compare the frequency of 'Body donation' activities held in the Anatomy Departments of Medical Colleges during Covid-times with pre-Covid time.

(2) To explore the perception of 'recipients of body donation' in accepting Body donation of COVID-19 unknown cases.

MATERIALS AND METHODS

Type of study : Field Operational Research.

Study Design : Cross sectional observational study.

Study duration : This was an ICMR- STS (Short term studentship) project. After obtaining necessary approvals from ICMR, Institutional Ethics Committee; data collection was done in 2 months of time period within the months of August & September 2022.

Study setting : The study was conducted under purview of Department of Anatomy of IPGME&R, Kolkata.

Study population : faculties of the Department of Anatomy(s) who were in the recipients end of the “body donation” programme and Exclusion criteria: Who did not give informed written consent to participate in the study.

Sampling technique : Non-randomized feasibility sampling

Sample size : Considering the feasibility, data was collected from 30 faculties from three (3) different Medical Colleges of Kolkata.

Study technique :

Data was collected by

- (a) Analysis of the maintained records in the office
- (b) Face to face interviews with the participants.

Materials used :

- (a) An interview guide
- (b) Informed consent form
- (c) Records maintained in Anatomy Departments(s)

Data collection procedures :

After approval from ICMR, necessary permissions were taken from Institutional Ethics Committee (IPGME&R/IEC/2022/309 dated 30/06/2022), HODs, President of ASI- WB Chapter, NGO officials. Data on numbers of Body donation accepted by Medical College- has been obtained from the register maintained in the Department(s). For feasibility, period of March, 2019 to February, 2020 has been considered as “pre-COVID times” & period of March 2020 to February, 2021 has been considered as body donation in “COVID period”. Perception of the recipients of Body donation- has been obtained by the face to face in-depth interview with the faculties in Department of Anatomy; using the interview guide after obtaining informed consents from them.

Data analysis procedures:

The data collected was checked for completeness and consistency. Then the data was entered in Microsoft Office Excel 2010 (Microsoft Corporation, Redmond, WA, USA), SPSS version 20 and analysed.

RESULTS

In total thirty faculties of Anatomy Departments of three different Medical Colleges of Kolkata have finally participated in the study. The records have well shown the vivid fall of the Body donation in the COVID period than usual times (Table 1/ Fig 1).

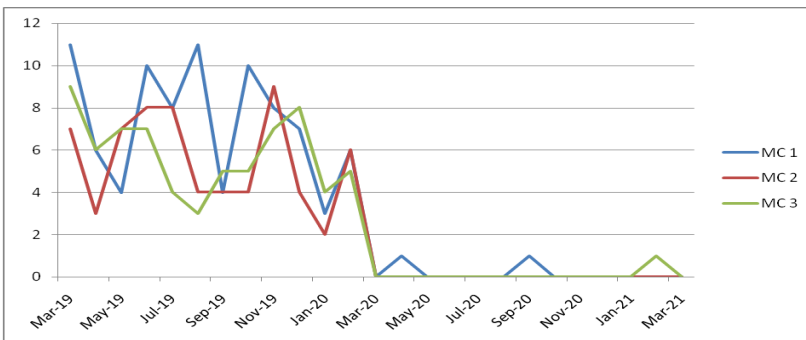
On interviewing with the faculties, it became evident that during the COVID-19 times majority (83%) had no knowledge regarding the lethality of the embalming fluid of SARS-CoV-2 virus; so they (76%) would to prefer for the COVID RTPCR test with 72 hrs of validity and if needed for the posthumous RTPCR testing (10% opined) to overcome hesitation to accept the body of COVID-19 unknown cases (76.6%)(Table 2)

DISCUSSION

The numbers of Body donation in a Medical College depends upon its location, social reputation as well as the trend of donation from its service area^{9,10}. The difference in findings can be explained by the fact that trends in Body Donations vary a lot from time to time, and from institute to institute. Similar trends were observed by some researchers in Organ donations and Organ transplantations^{11,12}. However, no research in our knowledge has yet been conducted to find out the status of Body donations in West Bengal in COVID-

Table1, Fig 1 — Comparison of ‘acceptance of body donation’ in preCOVID with COVID times

Pair	Monthly body donation	Mean	STD Deviation	T value (paired sample t test)	Significance (2 tailed)
Medical College 1	Pre-Covid times	7.33	2.807	8.332	0.000
	Covid times	0.17	0.389		
Medical College 2	Pre-Covid times	5.50	2.276	8.37	0.000
	Covid times	0.00	0.00		
Medical College 3	Pre-Covid times	5.83	1.801	10.682	0.000
	Covid times	0.08	0.289		



From above diagram it becomes evident that during Covid times, there was significant decrease of body donation in all the three Medical Colleges.

19 pandemic era. Majority of the faculties (83.33%) confessed they don't know whether embalming fluid can kill COVID-19 virus or not and that more research is required in this field. Now that COVID-19 cases are regressing, adequate measures must be taken by the authorities to remediate the gaps, so that proper coordination exists in the noble process of Body donations, and the hindrances in body donations are gradually erased.

CONCLUSION & FUTURE SCOPE

The study demonstrated significant fall of body donation in COVID-19 times. The cause of hindrances of the Covid-untested bodies was mainly lack of evidences of lethality of embalming fluid on SARS-CoV-2 virus and resulting fear of transmission from the Covid unknown cases. In present day it is true that the Covid pandemic has passed away, but lessons we learnt can be utilized in future days administrative planning.

Limitations :

Time- it was a Short term studentship project; so within a span of two months data collects were done. For which authors were compelled to restrict in smaller group of population. In future days, same study can be carried on in larger group of populations spanning all over the state even the country. Secondly, the lethality of embalming fluid on SARS-CoV-2 virus was also felt needed evidence. The work can be carried on in liaison with Department of Microbiology.

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Table 2 — Perceptions of the faculties of Anatomy departments

Perception of Anatomy faculties [N=30]	Type of response	No of respondents(%)
What was your perception on receiving the offer for body donation in Covid unknown cases – during COVID pandemic?	to accept directly	4 (13.33%)
	To prefer for the Covid RTPCR report, if negative, to accept	23 (76.67%)
What was your acceptable time-window, for the Covid RTPCR test in these cases?	to refuse directly	3 (10%)
	After death it would be carried on	3 (10%)
	24 hr from the time of body donation	3 (10%)
	48 hr from the time of body donation	1(3.33%)
According to you, who would to arrange for the RTPCR test, in these cases?	72 hr from the time of body donation	23 (76.6%)
	From donor's family	21 (70%)
	From recipient department	7 (30%)
What is your knowledged on lethal potency of embalming fluid to inactivate COVID-19 virus?	It inactivate surely	5 (16.67%)
	It not inactivates	0 (0%)
	I don't know	25 (83.33%)

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