**Title of the article:**

**Ethical perplexities preclude pathological autopsies in COVID-19.**

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**Article**

**Ethical perplexities preclude pathological autopsies in COVID-19**

**Abstract**

The need for pathological autopsies in COVID-19 is constantly being expressed across the world. The low rate of autopsies in this critical time however, is alarming. Ethical perplexities can have a huge impact in precluding the pathological autopsies, and hence, efforts should be made to identify the issues and suggest measures for expedition into the COVID-19. The three basic requirements for conducting pathological autopsies during COVID-19 outbreak are; informed consent from the next of the kin of the deceased, facilities for safe conduction of pathological autopsies in such infectious diseases, and medical expertise needed to carry out the procedure and subsequent examinations. A joint effort involving the administrators, health care workers and the general population is required to bring the desired change to overcome the reluctance towards pathological autopsies. Lay public should be educated about the relevance of pathological autopsies, and the various procedures involved in it.

**Keywords**

COVID-19; SARS-CoV-2; Ethical; Pathological autopsies; Clinical autopsies

**Introduction**

SARS-CoV-2 has engulfed the entire world, bursting through chain-reaction into a COVID-19 pandemic.1 Incessant exploration are being made by the researchers to comprehend various aspects related to COVID-19. Scholars from all corners of the world speak with one voice emphasizing that pathological/ clinical autopsies have paramount significance as an exploratory tool to enhance the understanding of the pathophysiology of the disease.2-4 Ledford very aptly states that “*In the instance of a newly emerging disease, autopsy is critical to all of humanity*”.5 The more one can understand the disease, the more he is likely to apply such knowledge in management of COVID-19 patients. Even for the development of the vaccine, such clinical autopsies are considered absolutely vital. The chair of the Royal College’s death investigation committee has raised concern about lack of autopsies hampering the fight against the disease.6 Lack of pathological autopsies result in non-availability of human tissues for the researchers to work on, in order to unravel the mechanism of the disease and its effect on the different organs. A number of ethical perplexities are supposed to prevent the pathological autopsies from being conducted across the world.

**Ethical perplexities**

The three basic requirements for conducting pathological autopsies during COVID-19 outbreak are; informed consent from the next of the kin of the deceased, facilities for safe conduction of pathological autopsies in such infectious diseases, and medical expertise needed to carry out the procedure and subsequent examinations. Reluctance and/or limitation of any of the above requirements, can result in failure to initiate pathological autopsies. Pathological autopsies also called as ‘consented post-mortems’ has a mandatory requirement for a consent to be obtained from the next of kin of the deceased. The majority of the cases suggested for pathological or clinical autopsy fail to take off for want of consent or permission from the next of kin.

The cause for the refusal of the consent by the family members and relatives of the deceased may be many. An important one of those, may be lack of knowledge about the procedure and importance of the pathological autopsy.7 Others may be sociocultural reasons, lack of knowledge about the procedural consequences, and general fear of autopsy, and related mutilation. Death is inevitably a difficult time for the family members, who are mostly grieving and emotionally shattered by the loss of their near and dear ones. Communicating the details of the procedure and relevance of autopsy to the next of kin, and to seek informed written consent at such a time is truly challenging, and requires an extraordinary effort from medical practitioners.

Healthcare workers, at the same time may be reluctant to perform autopsy for fear of acquiring infection during the procedure. The worries of healthcare workers during COVID-19 outbreak may be very reasonable especially in resource limited settings, lack of adequate infrastructure facilities, infection prevention and control measures, personal protective equipment (PPE) etc.8

**The way forward during COVID-19 outbreak**

Besides, the lack of facilities and lack of will on part of the health care workers, lack of consent has been cited as one of the most common cause of decline in pathological autopsies. The whole issue of conducting consented pathological autopsies during COVID-19 outbreak can be approached in a unique way by involving all the different stakeholders; the administration, health care workers and lay people in the process.

The administration and medical practitioners should take a proactive role in educating the public about the relevance of pathological autopsies, and the various procedures involved in it. The provisions in the Epidemic Diseases Act9 and National Disaster Management Act10 empower the Government of India to pass any regulations deemed essential in the interest of the country, community and humanity as well.11 A likely way out for increasing the number of pathological autopsies would be to make it essential in all cases of COVID-19 deaths where the medical practitioner deems it necessary to perform. In such a scenario, the issue of consent from the next of kin takes a back seat, which obviously raises ethical concerns. It’s not suggesting that the gains received by an autopsy would be always greater than ‘substantial competing values’ held by a family of the deceased but it signifies in the interest of the large. To characterize the death as per ‘Cartesian dualism’ and using it without consent would have various ethical and legal aspects, hence, informed consent would be paramount.12

A far better option may be to take up measures to make the next of kin of the deceased understand the administrative directives and enable them to agree to the procedures in an informed way. In ambiguous situations, surrogate-decision-making should be considered, while respecting the sociocultural differences.12 It is critical to approach a family to consent for autopsy following loss of their loved ones. Appointing a ‘bereavement counselor’ or ‘patient affairs officer’ has proved to be valuable in securing consent for the autopsies.13 Apprehensions of family members as well as healthcare workers’ concerns regarding potential risks of infection in conducting pathological autopsies can be minimized by introducing novel virtual approaches such as core biopsy and echopsies for collection of samples postmortem.14 At the same time, infrastructure and facilities should be developed in the existing mortuary to safeguard the interests of health care workers involved in pathological autopsies.

**Conclusion**

The low rate of pathological autopsies in the current times is worrying. Even though perplexities are there, these can be handled and minimized to allow autopsies to comprehend the disease. Taking cognizance of the importance of pathological autopsy diligent efforts shall be made to minimize ethical perplexities involved in conducting pathological autopsies. The most important step in this regard would be to make the community aware about the importance of pathological autopsies and also to make them favourable to the procedures in the larger interest of the society.

We do not see any reason why the society that is becoming increasingly receptive to body donations for anatomic dissections or organ donations for transplantations would be averse to pathological autopsies in such times. Mass campaigns and public awareness initiatives should be taken up in this regard to develop its understanding among lay public and to encourage them to provide consent for pathological autopsy in the unfortunate event of the death of their relatives. Such a joint effort involving the administrators, health care workers and the general population would certainly bring change in the current scenario of scarce pathological autopsies.

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