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INTERACTION WITH DR. O. MURUGESA BHARATHI



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Dr O. Murugesha Bharathi is an Assistant Professor in the Department of Forensic Medicine at Indira Gandhi Medical College & Research Institute (A Govt. of Puducherry Institution), Puducherry. He has more than eight years of experience in the field of Forensic Medicine and we had the privilege to interview him and learn about his experience as a Forensic Medicine doctor.

1. Which type of crimes do you encounter the most? And what difficulties do you face when conducting an autopsy for those cases?

Hanging is one of the most common cases we encounter in the department, Puducherry being the suicide capital of India. Hanging causing mechanical asphyxia is an extremely common form of deliberate self-harm. Though a case of hanging could be easy to handle, it is an extremely common case for masking certain important findings. Keen observation is the key to handling any case. Sometimes, the absence of ligature marks, the uncommon position and the placement of the knots in such cases can complicate comprehending or ascertaining the cause of death. Also, for cases of hanging, specific bloodless flap dissection of the neck needs to be followed. This might require more training and expertise than normal.

2. Would you summarize the general procedure of an autopsy, while emphasising the most important organs or serological samples that you retrieve or examine first?

The procedure for an autopsy starts with a proper requisition from the concerned officials on par with guidelines of Sec. 174 CrPC (The Code of Criminal Procedure) for Police inquest or Sec. 176 CrPC for Magistrate inquest. After due paperwork, we try to elicit a required history from the investigating officers and in dicey situations and demand inspection of the crime scene, we request the officers and take a visit. Following these, we request the investigating officers to confirm the identity of the individual and then start with an external examination. External examination includes analysing the basic morphology, build, clothing, appearance. We take note of identification marks to establish the identity of individuals for documentation as this especially comes in handy in cases of unknown or unclaimed bodies. After identification, we appreciate the changes of death that can be seen in the deceased like algor mortis, rigor mortis, or livor mortis. These changes help us ascertain the time since death in certain situations. External examination also takes into account the descriptions of external injuries which could help determine manner of death, direction and cause of injuries. We also actively search for

clues or hints that could indicate signs of struggles before death. An internal examination follows the external examination. The commonly employed technique for autopsy is Virchow's technique. Depending on the initial case history we prioritise individual organ systems and go in an orderly fashion and appreciate changes seen in individual organs. For specific cases, specific modifications are made to this process. Lastly, we preserve organs/samples for histopathological examinations and toxicological analysis. The selection of organs and the choice of preservatives keep changing on a case-to-case basis. But, the most common organs preserved for toxicological analysis include, a portion of liver, portions from both the kidneys, 10ml of blood, stomach and part of the intestine along with their respective contents, and urine. When it comes to histopathological analysis, commonly preserved organs include the heart, lungs, and liver. Considering the Union territory of Puducherry, where I practice is a hub for alcoholics, pancreas is also sent for histopathological evaluation. We also ensure to write appropriate duly signed labels for these samples, pack them and send them to the concerned labs. After the entire procedure is over, care is taken to pack the deceased body and give it a proper aesthetic appearance for the relatives/attenders to perform the appropriate send-off rituals.

3. What conditions, concerning the body, make it hard to conclude an autopsy?

The physical form in which a body is retrieved from the site of crime makes a huge impact on a successful autopsy. This physical form of the body in turn narrows down to the time at which autopsy is performed and the difference between the actual time of death. It is extremely difficult to conclude while performing autopsies on bodies that are totally decomposed or charred. Equally challenging are cases of sudden cardiac deaths in individuals with underlying multiple comorbidities. Especially cases of vagal inhibition leading to sudden cardiac deaths or unnoticed/undocumented ventricular/atrial fibrillations, metabolic poisoning with insulin/potassium can complicate reaching a definitive conclusion during autopsies.

4. Would you throw light on your experience with your first autopsy? How challenging was it mentally?

I believe, for everything, there is a first time, and irrespective of how the experience is, it always stays etched in our hearts in indelible ink. The very first case I was assigned was a brought dead case of a middle-aged man to the casualty. After all the paperwork was done, the body was positioned on the post-mortem examination table. There were mixed feelings within me. Some part of me was happy and excited to investigate the first-ever case assigned to me, while some part of me was proud of myself for landing at that position where I could contribute to serving justice to people and solving the unexplained. Equally, there was apprehension popping up, as both the responsibility associated with conducting a post-mortem examination and the heat of justice is heavy to handle. Let's never forget the anxiety that tags along with any of our first steps. As soon as I saw the deceased, I had to exert that handle of control on all my thoughts and focused on only doing my best in the best possible way. External examination revealed nothing remarkable. In such cases, considering the age of the deceased, the second-best shot was to examine the cardiovascular system. As I began exploring the thoracic cavity, I noticed the pericardial sac enlarged and the sac congested. Further, it was evident that the likely cause of death was cardiac tamponade. On dissection of the heart, it became clear that there was ventricular rupture leading to cardiac tamponade. This one experience strengthened the idea in me that a proper autopsy can solve unsolved mysteries. It was an important component for serving justice to the deceased or his/her family. It boosted my morale and added confidence in me. Handling dead bodies of deceased individuals, the endless heinous crimes and the humanity that is tossed in such situations was never mentally taxing to me. Probably one possible reason to not be affected mentally is that I came determined and was expecting these when I chose Forensic medicine as my speciality.

5. How long did it take for you to get used to the process, and did you take any measures to help you adapt it?

I feel I was pre-prepared for facing this. The adaptation phase for me did not take much longer. I knew I was going to be doing this when I chose my speciality. One reason for my easy adaptation was that I was bestowed with a conducive environment filled with an understanding family, great peers and thick friends. Apart from this, keeping your mental balance on frequent checks is the key to adapting faster. "Always expect the unexpected" has been the motto that keeps me going!

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