VIRTOSPY (VIRTUAL AUTOPSY)-A NEW TECHNIQUE IN FORENSIC INVESTIGATION

Dr. Shilpa Abhang, Ms. Asha V

Abstract: With the technology ruling over every sphere of our fashionable lives it's no marvel that it's conjointly proving to be a supply of nice facilitate to the rhetorical consultants WHO with their work build the dead speak. Technology is replacement the manual and ancient ways and with the launching of hygiene and autopsy suites virtual autopsy/digital autopsy / autopsy imaging is so moving from fiction to changing into a factual reality. Although rhetorical radiology has been in use since the invention of X-rays however the technique that was wont to visualize and analyze the mummified remains of individuals WHO died thousands of years past sowed the seed of digital image being promoted commercially as digital autopsy. Within the setting of rhetorical analysis, 3D surface scanning mistreatment multi slice CT technology provides glorious image of the body and permits re-examination of digital pictures of the deceased long when the particular time of death.

Keywords: autopsy, radiology, rhetorical analysis

1. INTRODUCTION
Autopsy is the logical examination of bodies after death, where entire surface of the body and in addition all the body cavities are investigated to record the discoveries. At the same time, we need to gather all the conceivable discoveries which will help in setting up the conditions prompting the passing and furthermore may help the law upholding organizations. At the same time, it is also equally important to consider the sentiment of the relatives of the deceased, who are always upset at the conventional autopsies. So, if there exists a means by which all the findings in the body can be collected, it should be accepted by all. It is long back that the post-mortem examination methodology were created and till now a similar age old systems for dissection are being utilized, however in alternate fields of Forensic Medicine, there is fast development and headway in the strategies performed and innovation utilized. Virtopsy is one stage towards this end.

They are of three types namely clinical or pathological, medico-legal and anatomical. Clinical/Pathological autopsy is done to determine the disease causing death and a pathologist performs it with the consent of relatives of the deceased. Medico legal autopsy is done to solve the mysterious unnatural death and is done by a Forensic pathologist or medico-legal expert ideally. Anatomical autopsy is carried out to learn the normal structure of the human body by medical students.

1.1 Technology
The technology currently used for conducting a virtual autopsy comprises of:

- 3D Surface Scan:- A 3D surface scan takes pictures of the patient to provide a visual record of the condition.
- Photogrammetry:- The photographic projection in a camera can be described mathematically as central projection of the object onto the plane. Every single object is mapped in an image point ,which is the intersection point of the projection beam and the image plane
- Radiography:- Radiography is an imaging technique using X-rays to view the internal structure of an object
- Multi-slice Computed Tomography[MSCT] and MRI:- This supplements the internal post-mortem examination of the body in autopsy. For study of bone lesions and cause of death.
- Post-mortem angiography:- which visualizes the cardiovascular system of the deceased with the aid of peristaltic pump and contrast medium.

1.2 Implementation
This is a research that is being done mainly as a contribution to forensic investigation. Virtopsy is a virtual alternative to a traditional autopsy, conducted with scanning and imaging technologies. Multiple slices of MRI (Magnetic Resonance Imaging) image data is uploaded to the system. The system extracts 3D images that can be processed to detect abnormalities in the human body. Abnormalities can be finger prints, bone breakage, clots in the vessels, ischemic attacks and any human related injuries.

In this implementation we are inserting two images namely:
1. A normal 2D image
2. A depth map image of the 2D image

Once these two images are added we get stereoscopic images i.e., one for the right eye and other for left eye. Combining these two images we get a 3D anaglyph image that helps us to view the abnormalities in the body.

1 Dept. of MCA, Jyoti Nivas College, Bangalore, India
2. CONCLUSION

Autopsy has its advantages however virtopsy has trendy progressions that provide protection to invalid family. At this virtopsy cannot replace ancient post-mortem since it's another improvement within the field of examination of death. Virtopsy could be a recent advance within the field of investigation into the reason for death that has several benefits over the standard autopsy additionally as disadvantages. Virtual Autopsy providing Associate in Nursing moral support in rhetorical examinations. The recent advances within the development of a non-invasive technique of visualizing the insides of an individual while not pain the cultural, spiritual and social beliefs guarantee a dignified finish to a person’s life. whereas imaging autopsies are unlikely to ever match a number of the microscopic anatomy and metabolic info offered from ancient autopsies, it should be that for sure diseases photography postmortem is really superior.

3. REFERENCES