

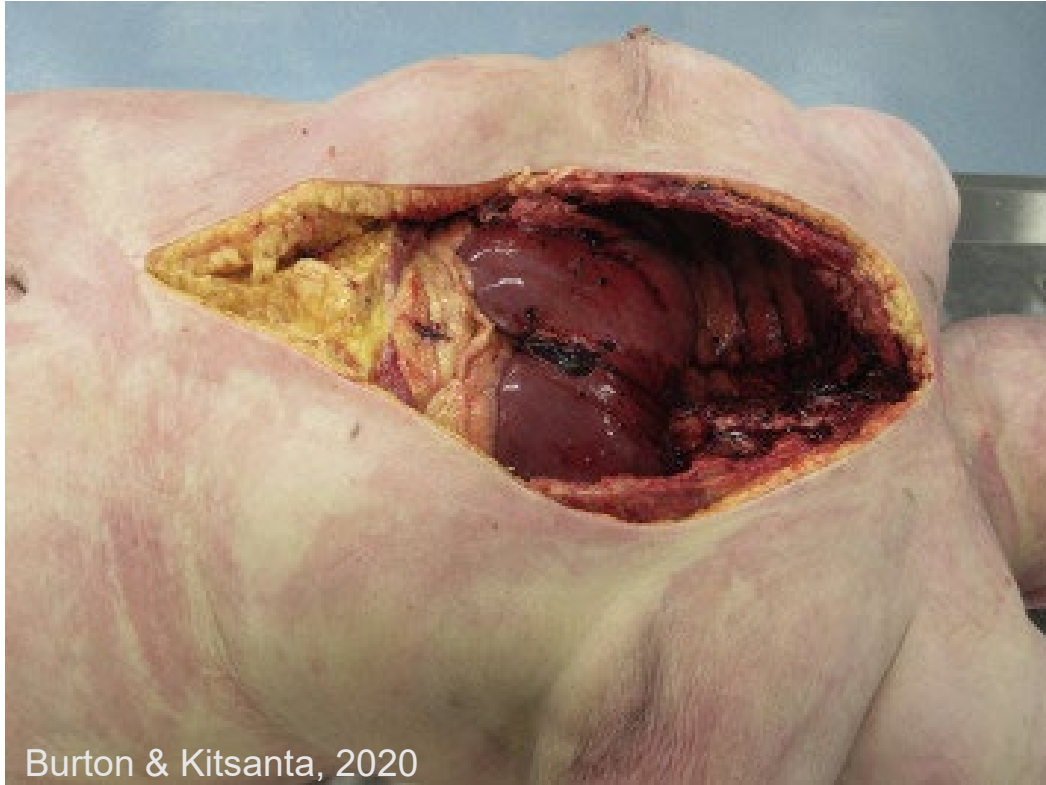
Virtual Autopsy Software for Small Rural Hospitals

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What is an Autopsy?

- A post-mortem examination of the body
- Why perform an autopsy?
 - Usually, to determine cause of death or disease progression
- Who can order an autopsy?
 - Medical Examiner
 - Family of the deceased

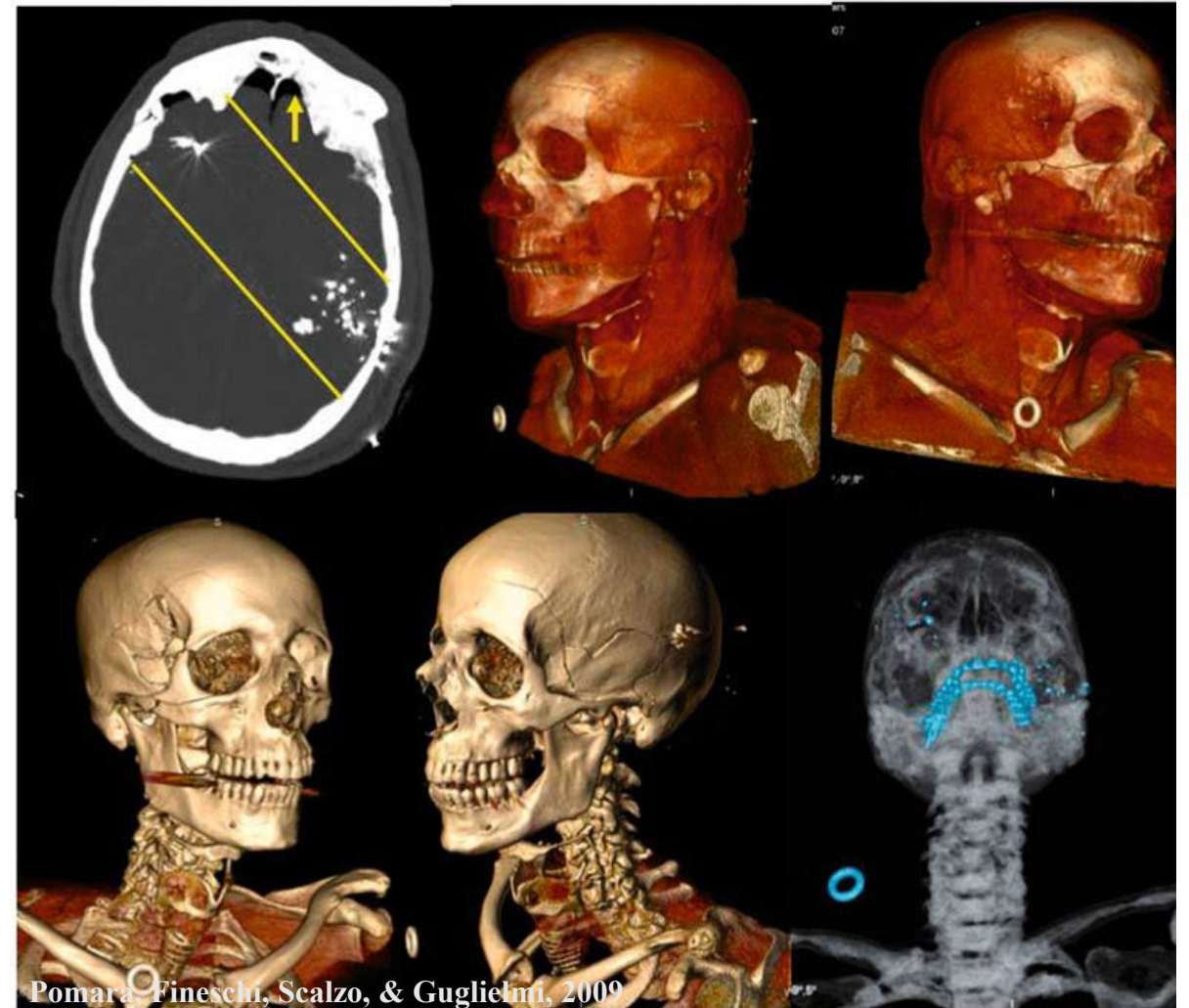
Traditional Autopsy



- Involves invasive techniques to physically examine the internal organs and systems of the body
- Considered the “Gold Standard” for determining cause of death

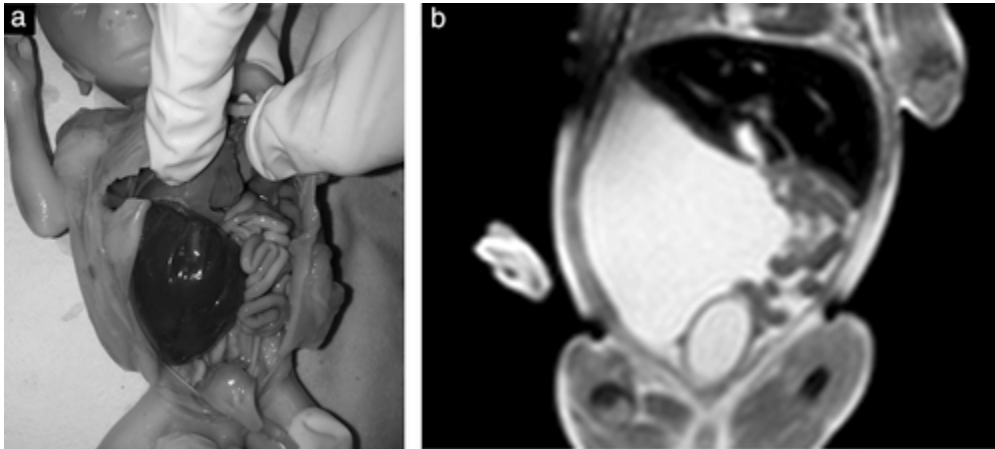
Virtual Autopsy

- A virtual autopsy is a minimally invasive to non-invasive way to examine a body post-mortem through MSCT and MRI imaging
- Can be a great option for cases where invasive autopsy is not wanted or needed



Virtual vs. Traditional

- Which is better?



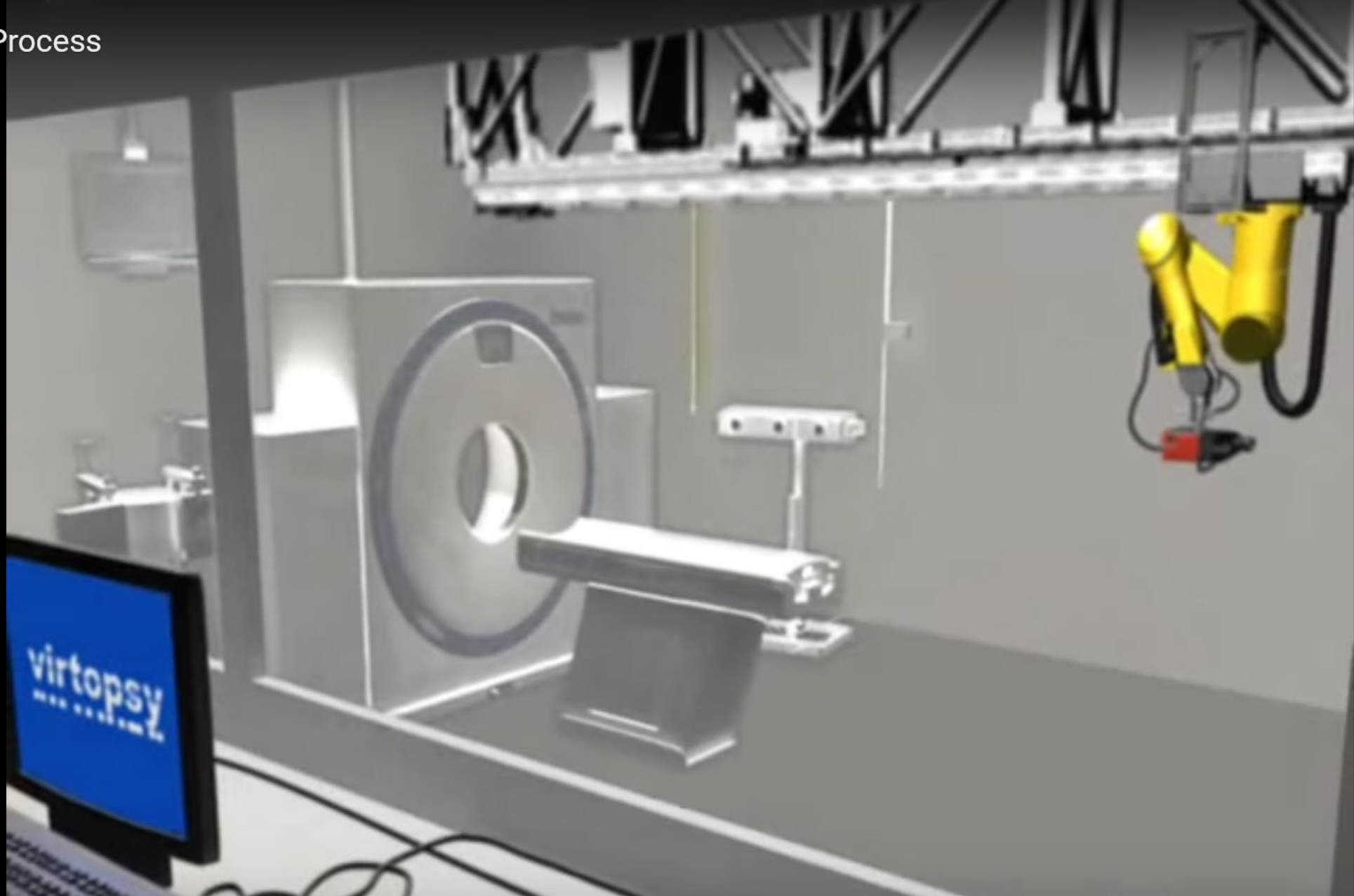
Shruthi, M., Gupta, N., Jana, M., Mridha, A. R., Kumar, A., Agarwal, R., ... & Kabra, M. (2018).



What is the Problem?

- Small rural hospitals may not have access to virtual autopsy due to a variety of different reasons
 - Lack of personnel
 - Pathologist, radiologist
 - No budget to purchase expensive virtual autopsy equipment





Moving Towards a Solution

- Goal: Virtual Autopsy software for small rural hospitals that can be integrated into systems and equipment which they already use (e.g., PACS, CT, MRI).
 - 3D imagery similar to MSCT (multi-slice computed tomography)
 - A complete autopsy dashboard with dictation and transcription capabilities

Proposed Solution

- PACStopsy
 - An all-in-one virtual autopsy software
 - Would work within existing imaging system like PACS that healthcare systems already own
 - Designed to eliminate barriers to performing virtual autopsies
- This would allow smaller rural hospitals increase autopsies and determining cause of death (COD)

Dictate

Previous

Zoom In

Zoom Out

Account



Help

Report

Current Case

Name: Jane Doe

DOD: 01/21/21

Home

Calendar

Lookup

Head

Abdomen

Spine

Heart

Lung

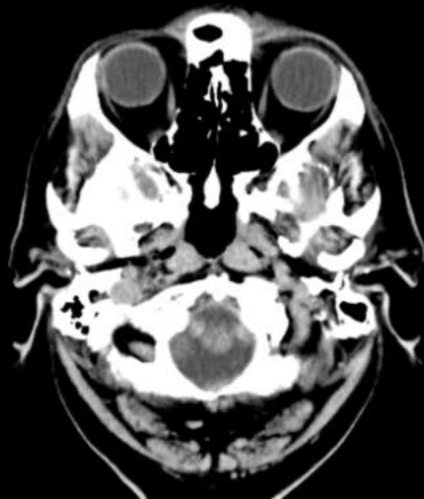
Liver

Kidney

Spleen



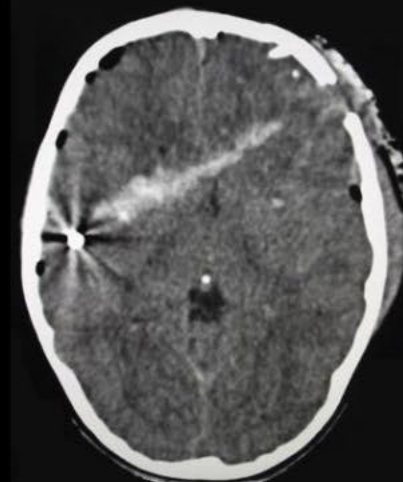
Transverse View



Name
DOD
Todays Date



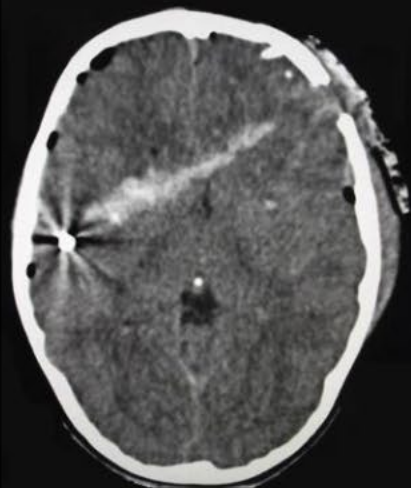
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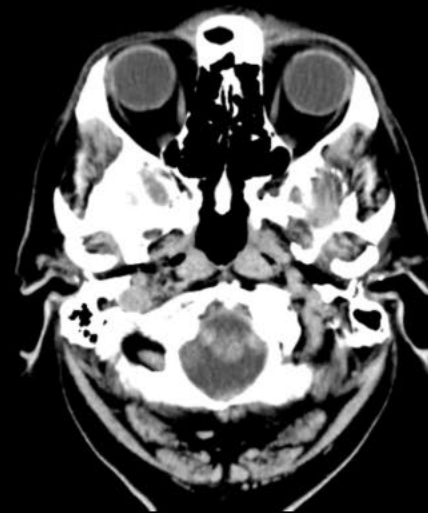
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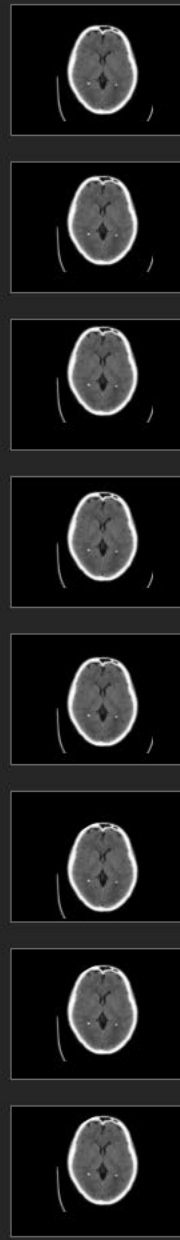
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Transverse View



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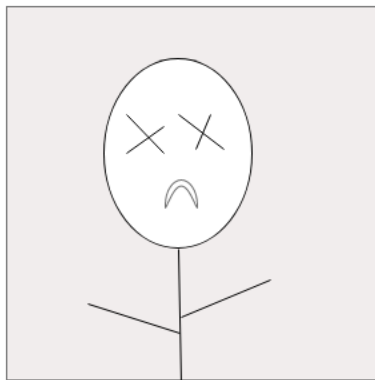


Current
Name: Jane Doe
DOD: 01/08/2023

Virtual Autopsy Report (PACStopsy)

Name: Jane Doe
Date of Birth: Unknown
Date of Death: Unknown, most probably between January 8th and 9th
Medical Examiner: Martha Pageant, MD

The deceased was found unresponsive with Walmart bag around her head. Officers on the scene report no one in the area. No form of identification found on body. Forensic toxicology collected and sent to lab. Medical Examiner ordered virtual autopsy to be completed with traditional ordered pending results.



Dictate

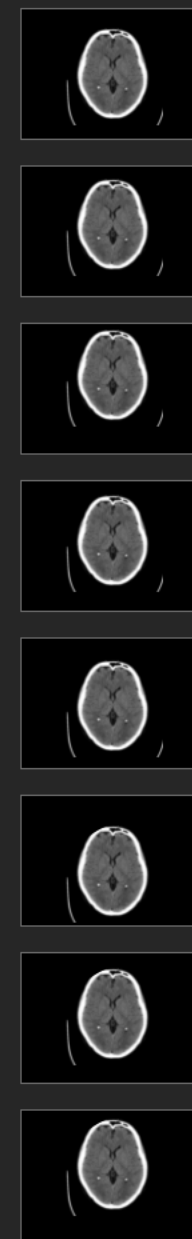
Export



Name
DOD
Today's Date



Name
DOD
Today's Date



Reference

- Burton, J. L., & Kitsanta, P. (2020). Daily application of post-mortem computed tomography digital autopsy in a public mortuary. *Diagnostic Histopathology*.
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- Shruthi, M., Gupta, N., Jana, M., Mridha, A. R., Kumar, A., Agarwal, R., ... & Kabra, M. (2018). Conventional vs virtual autopsy with postmortem MRI in phenotypic characterization of stillbirths and fetal malformations. *Ultrasound in Obstetrics & Gynecology*, 51(2), 236-245.

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