

Virtual Colonoscopy

Summary

808 abdominal CT cases from the seminal department of defense (Virtual) CT Colonography clinical trial of testing 3D visualization of CT slices as an aid to colon polyp detection. Results were reported in N Engl J Med. 2003 Dec 4;349(23):2191-200 by PJ Pickhardt. The study resulted in polyp detection sensitivities in the 93% range, which approximated that of optical colonoscopy in the same patients. The results were published in NEJM in 2003 and the study was considered ground-breaking by the colon-polyp screening community. Original CT digital files from the study cases obtained at WRAMC and NMC San Diego were transferred to NBIA to serve as a resource of CTC CAD research and commercial development. The collection contains the original DICOM CT image studies and data abstracts of the radiology and optical colonoscopy reports, as well as pathology reports of removed polyps.

Disclaimer: *This collection is made available from the Walter Reed Army Medical Center Virtual Colonoscopy Collection in collaboration with National Cancer Institute, NIH. If you use this data or images from this web site in publications, research manuscripts, proposals, or other technical documents, you must acknowledge that the data has been provided courtesy of Dr. Richard Choi, Virtual Colonoscopy Center, Walter Reed Army Medical Center.*

Annotation Data

To efficiently download only selected DICOM cases by querying the results data (e.g. cases with certain sized polyps), an MS Access relational database file is provided that can be downloaded and opened locally to find case subsets of greatest interest.

The MSAccess file can be downloaded by clicking here: [WRAMC and SD.mdb](#)

Data Access

Collection Statistics	
Modalities	CT
Number of Patients	808
Number of Studies	812
Number of Series	1,608
Number of Images	686,257

You can [view and download these images on NBIA](#). You do not need to log in unless you want access to advanced features in the site. Simply follow these steps:

- Navigate to <http://imaging.nci.nih.gov>
- Click the "Search Images" link in the center of the page
- Scroll down through the search criteria until you see the "Collections" section
- Select the "Virtual Colonoscopy" check box
- Press "Submit"

This will return the full list of cases included in the collection. To download the associated DICOM images:

- Press the "Check All" button and then "Add to Basket"
- Press the "View My Basket" button at the bottom of the page (or "View Contents" in the left menu bar)
- Press the "Download Manager" button to open a Java applet and specify where you'd like to save your images

Curation Notes

Sept 22, 2009

Data redundancy issue found and corrected:

SD VC-129M v. SD VC-127M
SD VC-318M v. SD VC-316M
SD VC-476M v. SD VC-475M
WRAMC VC-154M v. WRAMC VC-107M
WRAMC VC-268M v. WRAMC VC-267M

The patients in the above patient id pairs,

1. Both are visible
2. Both have the same number of study/series, and same study instance UID and series instance UIDs
3. Both have curation data (from uploaded spreadsheet) except SD VC-475M
4. Both curation data have similar CDE with different values

What we have done is to removed the second case in each pair and their data to reduce the duplication. In addition, all 10 patient's data are stored separately off-line.