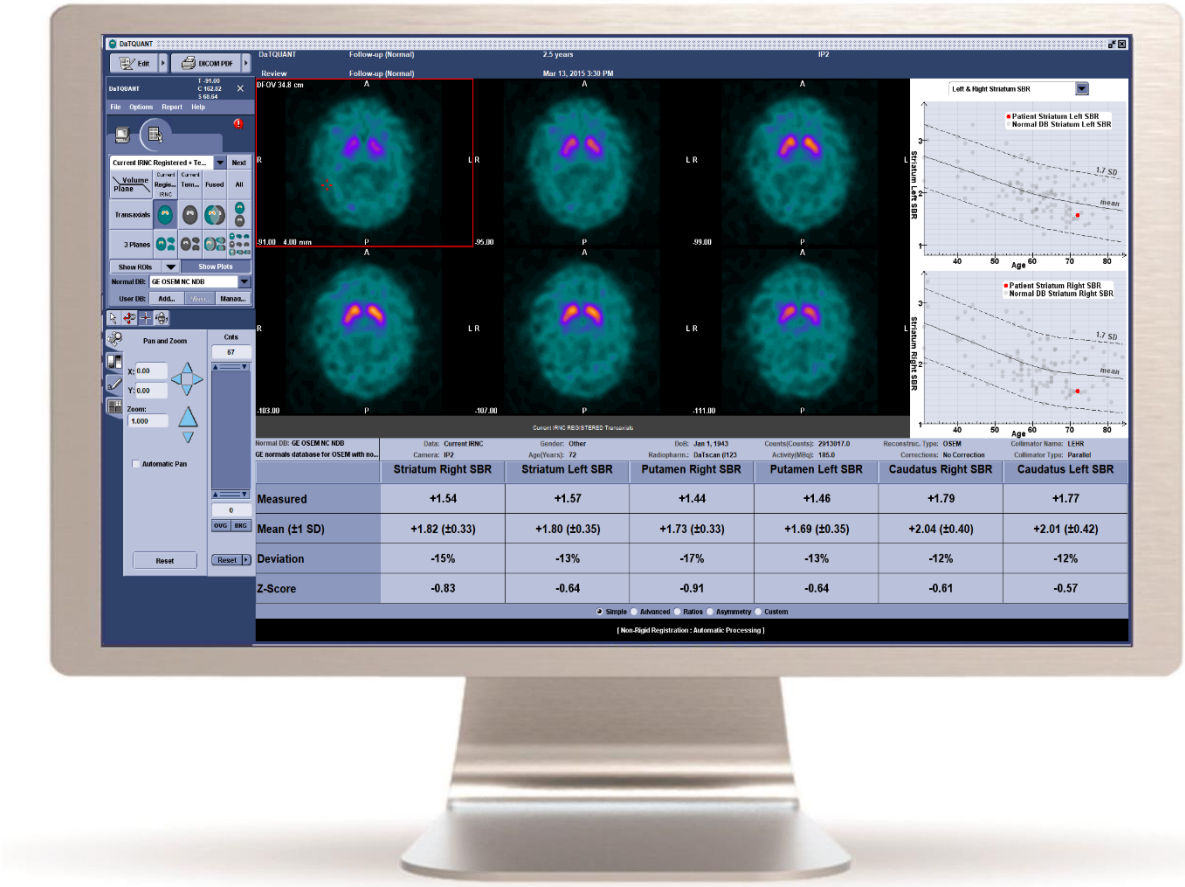
GE Healthcare

DaTQUANT **Software for your PC**

Quantitative Software of ^{123}I-ioflupane (DaTscan™) images



	Striatum Right SBR	Striatum Left SBR	Putamen Right SBR	Putamen Left SBR	Caudatus Right SBR	Caudatus Left SBR
Measured	+1.54	+1.57	+1.44	+1.46	+1.79	+1.77
Mean (±1 SD)	+1.82 (±0.33)	+1.80 (±0.35)	+1.73 (±0.33)	+1.69 (±0.35)	+2.04 (±0.40)	+2.01 (±0.42)
Deviation	-15%	-13%	-17%	-13%	-12%	-12%
Z-Score	-0.83	-0.64	-0.91	-0.64	-0.61	-0.57

Indications for Use

DaTQUANT application enables visual evaluation and quantification of ^{123}I-ioflupane (DaTscan) images. The DaTQUANT Normal Database enables quantification relative to normal population databases of ^{123}I-ioflupane (DaTscan) images. This application may assist in detection of loss of functional dopaminergic neuron terminals in the striatum, which is correlated with Parkinson's disease.

Regulatory Compliance

- DaTQUANT is available for sale only in countries where ^{123}I-ioflupane pharmaceutical is approved for use.

Overview

DaTQUANT application enables visual evaluation and quantification of ^{123}I-ioflupane images (DaTscan™) along with relative comparison to normal population database. This application may assist in detection of loss of functional dopaminergic neuron terminals in the striatum, which is correlated with Parkinson's disease. Other movement disorders (such as Essential Tremor) can present with similar symptoms to Parkinsonian disorders but without deterioration of the dopamine neurons. Therefore, imaging of the active dopaminergic neurons or dopamine transporters may help differentiate between disorders that have been associated with dopaminergic neurodegeneration (such as Parkinsonian syndromes) and those that do not (such as Essential Tremor).

Clinical Uses

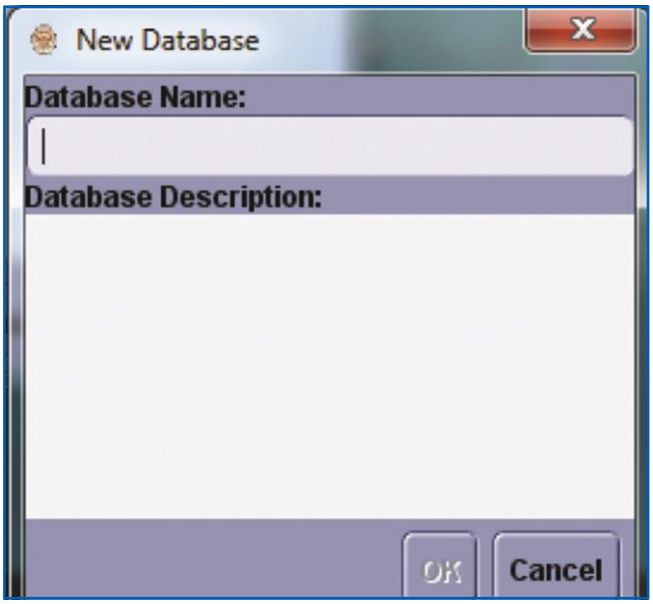
^{123}I-ioflupane images show uptake in the striatal regions in healthy subjects while images of PD subjects show reduced uptake in the posterior putamen. During disease progression, the anterior putamen and then caudate may become affected and eventually the whole striatum shows reduced uptake. DaTQUANT analysis provides a visual and quantitative method for the assessment of the striatal signal. Relative comparison of uptake ratios along with comparison to a database of normal exams may be used in detection of functional presynaptic dopamine transporters in the striatum. Therefore, DaTQUANT analysis may assist in the visual and quantitative assessment of the function of presynaptic dopaminergic neurons and may provide an adjunct tool supporting clinical evaluation in Parkinsonian Syndromes, like Parkinson's disease.

Features

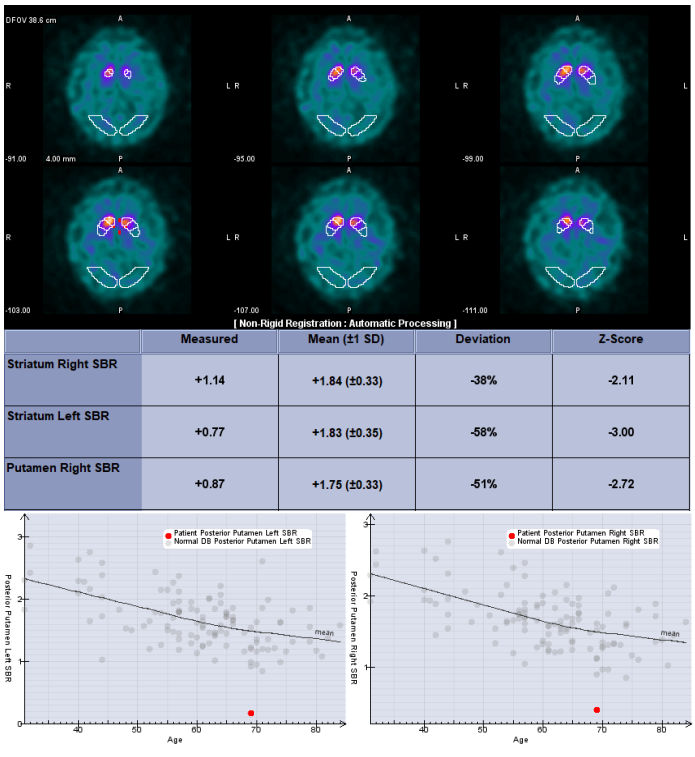
- Automatic registration of images to template space
- Consistent and repeatable placement of the VOIs on the registered images
- Provides comparison to normal database with standard deviation measurements

	Striatum Right SBR	Striatum Left SBR
Measured	+1.14	+0.77
Mean (±1 SD)	+1.84 (±0.33)	+1.83 (±0.35)
Deviation	-38%	-58%
Z-Score	-2.11	-3.00

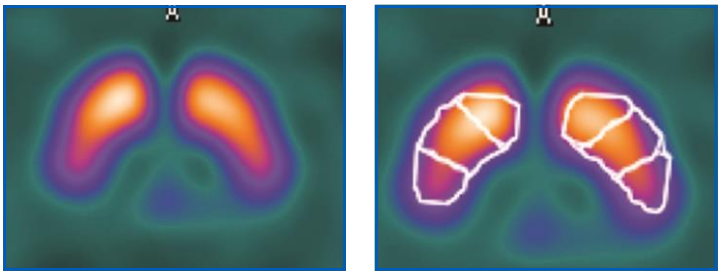
- Simple generation of user defined, custom created normal databases allowing users flexibility to database creation, enabling site specific population comparisons



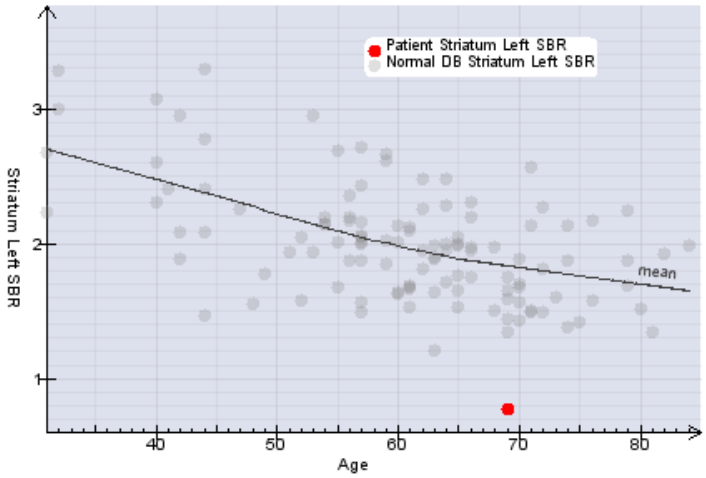
- Simple import/export of custom created normal databases
- Longitudinal analysis for simple visual and quantitative comparison of two time points
- Updated report option provides streamlined picture and statistical results with simple exporting options to share with referring physicians



- Provides tools to analyze binding ratio differences between multiple scans
- Graphically driven re-orientation capability to support recommended anatomy alignment for image review
- Multi-planar (MPR) reformat display for every exam
  Region boundaries can be turned on/off for clear identification of the regions



- Manual adjustment of VOI placement
- Automatic asymmetry measurements for left/right brain regions
- Automatic putamen/caudate ratios provided
- Graphical plot displays striatal binding of patient compared to age matched normal subjects



- Flexible user interface with simple customization options
- DICOM® data manager allows simple query/retrieve/send of DICOM images
- Monitor QC provides a guided check to help ensure monitor display characteristics are suitable for review of diagnostic medical images
- Simple installation with .msi installer format. Installs with one click install command

System Requirements

- DaTQUANT is compatible with Windows 7, 32-bit architecture and Windows 10, 64-bit architecture operating systems.
- Minimum hardware requirements:
  - Resolution 1280 x 768
  - 1 GB RAM (4GB or more, is recommended)
  - 1 GHZ CPU speed
  - 2048 MB disk space
- Site IT group to assist with installation and DICOM connectivity set-up
- Email capability from client for easy communication with GE (recommended)
- Static IP address is recommended

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imagination at work

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