Review of “Brain MRI Atlas” App for the iPad

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App Specs

Seller: Joseph Pechter.
Category: Medical
Updated: April 18, 2011
Version: 1.0
Size: 2.1 MB
Rating: Rated 4+
Family sharing: Yes
Compatibility: Requires iOS 4.3 or greater. Compatible with iPad
Languages: English
App icon URL: <https://itunes.apple.com/us/app/brain-mri-atlas/id431556580?mt=8>
App name: Brain MRI Atlas
App developer: Taboom
App developer Website: <http://www.radlynx.com/>
App price: Free
Apple App Store URL: <https://itunes.apple.com/us/app/brain-mri-atlas/id431556580?mt=8>
Google Play Store URL: NA
Category: educational, clinical, medical
Tags: clinical educational free anatomy radiology iOS iPad brain MRI
Works offline: Yes
FDA approval: NA
Promotion code: None

Quick Review

(1 star: lowest / 5 stars: highest)
Overall rating (1–5): 4
Content (1–5): 4
Usability (1–5): 4

Pros Extremely clear and detailed delineation of complex neuroanatomy. Ability to select for specific neuroanatomical categories (e.g., nerves, ventricles).

Cons Axial FLAIR sequence only. Cannot search by label.

At a Glance A great overview of detailed neuroanatomical structures as seen on MRI, in the axial plane only.

Full Review

Introduction

A detailed knowledge of neuroanatomy is crucial for the health professional interested in clinical entities affecting the brain. Specifically for the neuroradiologist, neurologist, or neurosurgeon, a knowledge of neuroanatomy helps understand and compartmentalize the different disease processes that occur within the brain. However, a mastery of neuroanatomy is challenging, given the high level of detail within a relatively small space.

Purpose/Features/Content

The purpose of this app is to teach the various neuroanatomical structures as they appear on MRI.

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Fig. 1 Representative axial slice of the brain, demonstrating multiple labels of various anatomical structures, color coded according to anatomical category

The app features an axial MRI, FLAIR sequence, of the brain, comprising of 31 slices. The user can toggle between slices either by pressing the right or left arrow on the bottom of the screen or by swiping right or left on the slices.

For any given slice, there are multiple anatomical structures; any given anatomical structure is labeled, with a line extending from it towards the name of that structure which is written outside of the slice itself. For example,

on slice 14/31, there are 28 different anatomical structures labeled (Fig. 1).

The various anatomical structures as grouped into seven different categories: vessels, ventricles, deep brain, cerebellum, gyri, sulci, and nerves. The labels for each category are color coded; for example, the labels of the ventricular structures are colored blue and so on.

On the top left of the screen, there is a drop down menu, with the option to turn on or off the labels of any of the categories

Fig. 2 Same representative axial slice of the brain as in Fig. 1. Drop down menu in the left upper corner showing several anatomical categories now unchecked, with only the correlating labels displayed

(Fig. 2). For example, the user can turn off the labels related to gyri and nerves and see only the remaining labels.

Usability

The app is very usable. The interface is very friendly, with the MRI slice exhibited in very clear detail. The labels are very readable and do not interfere with the image itself. Toggling between slices is very easy, providing an easy continuity between slices and anatomical structures.

Good

The app has clear identification of multiple complex neuroanatomical structures as seen on axial MRI.

Room for Improvement

The app needs to improve on adding sagittal and coronal planes and allowing function to search for a given label.