Dedicated To
All World
Radiologists

It Looks Like

Pareidolia in Radiology and Imaging

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It looks like

When you are flying over the clouds, going to west, east, north or south, pay attention to them, it is truly steam or vaporized water, but you can see animal or human faces or other shapes or faces.

A human Face in Clouds

You think you can walk in the clouds, but don't do it " Like angels".

White angles with wings can sit on the clouds, but you can only see them. *[Please watch but don't touch]*.

A Carpet Image Looks like Lion Face

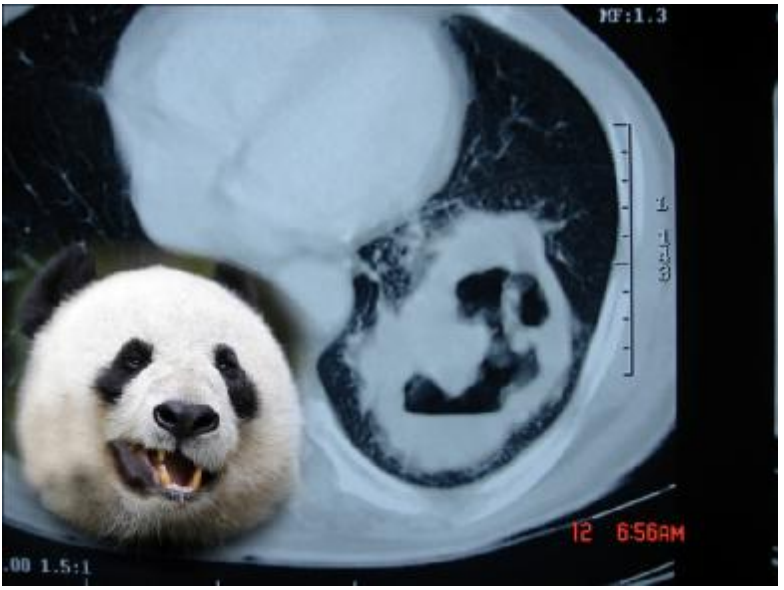
It is not necessary to fly over clouds to see what they look like. You can do it without flying and just look at them from land and while going for a walk; "Inferior Perspective".

A Mosaic Looks Like eagle head

You can see the same Phenamena with the ceramics of the floor of the bathroom or toilet, you can see different images of nature or things in them.

I found these images in radiolograms, Ultra sonograms, CT-Scan and M.R. Images.

I have many kinds of owl faces, koala faces, white polar bear and even Mr. Woody Allen's face in an axial cross section CT- Image of human leg.



A lung tumor mimicking animal Face

I remember Rorschach tests in which everyone sees different things.

Somebody says: I see a murderer that wants to kill me: but another person sees a beautiful nurse who wants to help him. Somebody talks about a dangerous black wolf but another person sees a nice and beautiful deer looking quiet.

In My first inspections and diagnoses, I found many human faces and I named these findings as human body zoo. Later I renamed it, “It looks like”, because I found shapes other than human faces.

After the first radiology lessons everybody knows Scotty dog in oblique view of lumbar spine.

Scotty dog Image in Oblique radiology of human Spine

For judgment about ante spondylolysis we have seen Mickey Mouse or rabbit of Playboy emblems in ultra Sonography, dog ears in radiogram of pelvic cavity Ascites and so on.

Any radiologist with artistic eyes can similarize cases by axial T2 images of prostate, urinary bladder also, Rectum in every pelvic MRI to a rural man with skycap and occasionally, I found him smoking a cigarette.

I had a scientific poster presentation in annual congress of Iranian society of radiology and a case

presentation paper in IJR “Iranian Journal of radiology”.

A Radiologist is a doctor of doctors or a doctor for other doctors. A Radiologist should be an artist beside his scientific activities.

A Radiologist should be a sportsman and a collectioner of good things and better or best collection for him are images from his or her practition and work.

When you see the moon you can imagine anything you like or want. By solving puzzles and cross words, you are fighting against Alzheimer’s by searching for similarities in these images you are fighting senile demance.

When you are reporting an image, please search for look-aliks, but try to see the angel not the devil.

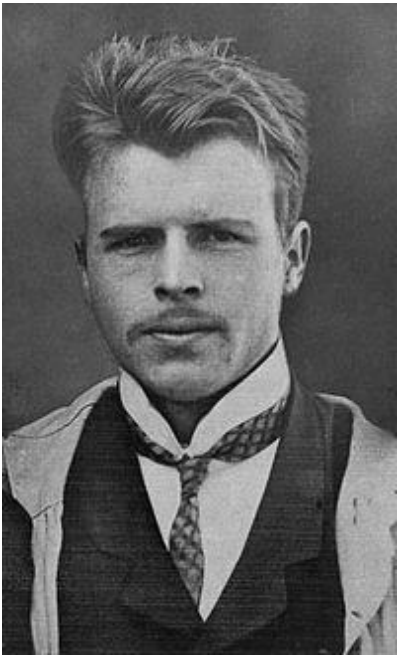

My Mother's Scarf


Scarf Close Up


My mother's scarf, incidental kinking position as a head of Cobra or constrictor


Close up of Cobra (constrictor) Head

Rorschach test is a psychological test in which subjects perceptions of inkoblots are recorded and then analyzed using psychological interpretation, complex algorithms or both. Some psychologists use this test to examine a person's personality characteristics and emotional functioning[1].



Mr. Rorschakh

I am not going to teach radiology and radiologic signs for diagnosis of disease, but I can teach you about art in radiology and fun.

I found pareidolia in the Web, which is a psychological phenomenon involving a vague random stimulus often an image or sound being received as significant. Common examples include seeing images of animals or face in clouds, the man in the moon or

[1] Swiss Psychologist Hermann Rorschach, Wikipedia

the moon rabbit, and hearing hidden message on records when played in reverse.

The word comes from the Greek words in this context meaning something faulty or wrong[1].

The Rorschakh Ink blot test uses pareidolia in an attempt to gain insight into a person's mental state "Direct pareidolia" in Art notebooks.

Leonardo da Vinci wrote about pareidolia as a device for painters and he wrote, if you are looking at any walls spotted with various stains or with a mixture of different kinds of stones, if you are about to invent some scene you will be able to see a resemblance to various different landscapes adorned with mountains, rivers, rocks, trees, plains, wide Valleys and various group of

Leonardo Dawinchi

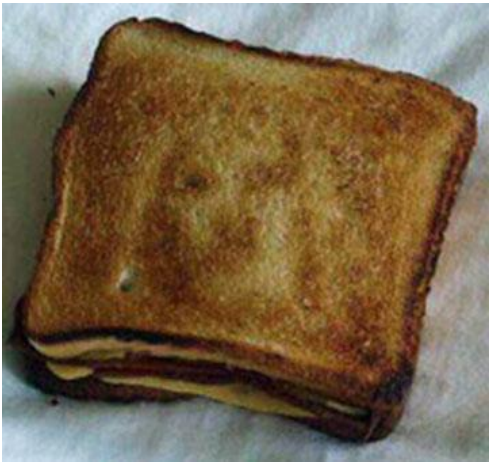
[1] Wikipedia

hills. You will also be able to see divers, combats and figures in quick movement and strange expressions of faces, and outlandish costumes and an infinite numbers of things which you can then reduce into separate and well conceived forms[1].

I think our wall in radiology is wider than Leonardo da vinci's mentioned wall but in gray scale.

In religion, there have been many instances of perceptions of religious imagery and themes, especially the faces of religious figures are unordinary phenomena.

Many involve the word Allah, Jesus, the Virgin Mary and many many examples are in Divination, Fossils, Electronic voice phenomenon and backmasking in popular music.



Bread with face image

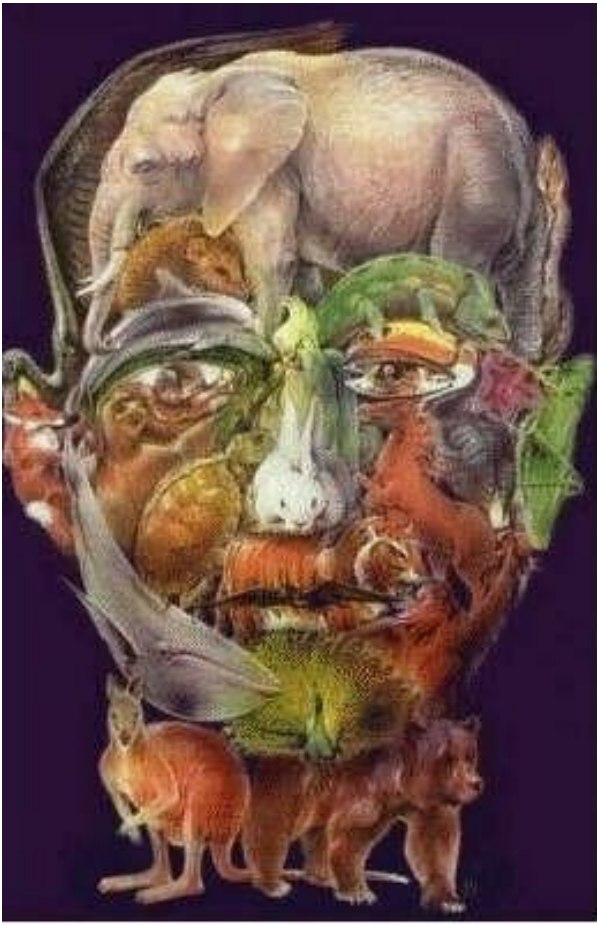
[1] Wikipedia

Carl Sagan hypothesized that as a survival technique, human beings are “hard wired” from birth to identify the human face. This allows people to use only minimal details to recognize faces from a distance and in poor visibility but can also lead them to interpret random images or patterns of light and shade as being faces.

By magneto Encephalography and Functional MRI it is discovered that people identify a few circles and a line as a face so quickly and without hesitation as an early brain process by activation in the ventral fusiform cortex in 165m seconds.

It is a slightly earlier pick at 130m seconds for images of real faces[1].

[1] Wikipedia



Human face, made by animals

JESUS in Toast[1]

The man in the moon, Jesus in toast, the virgin Marry in grilled cheese sandwich.

A face on the moon

Faces are everywhere, even when they are not strictly speaking, supposed to be.

Now new research reveals the brain processes that underlie these facial false alarms, a phenomenon Called "Face pareidolia".

The Finding Suggest that Expectations matter. When people expect to see a face, these expectations may activate a brain region responsible for processing faces, the researchers report in the April issue of the Journal Cortex.

[1] By Stephanie pappas, Livescience.com

Tricking the Brain:

The neural Basis of this phenomenon is less understood, however, researchers from the University of Toronto and several institutions in china report about cortex.

To Study what goes on in brain during these misidentifications, the researcher recruited 20 Chinese men and asked them to look at imagery while in a functional MRI machine. The functional MRI measures changes in the magnetic properties of Oxygen-rich and oxygen depleted blood, which enables researchers to tell which area of the brain are getting an influx of blood flow at any given time. This blood flow signals increased neuron activity in those regions.

The researcher first asked the men to look at a series of images, all of which were observed with the kind of static-Y visual “Noise” you might see on a television with a bad cable connection.

Two Images showed male faces, one easy to discern and the other camouflaged. Two other showed letters, again with one easy to see and one difficult to spot.

The final image was pure black-and-white, splotchy noise.

The face and letter experiments were done separately, a week apart for each participant, but the set-up was the same.

The men were asked to push one handheld button if they saw a face (or letter) and another if they could not.

After this initial test, the men saw another series of images and were told half contained faces (or letters). This time, however, all of the images were secretly just visual (visual noise).

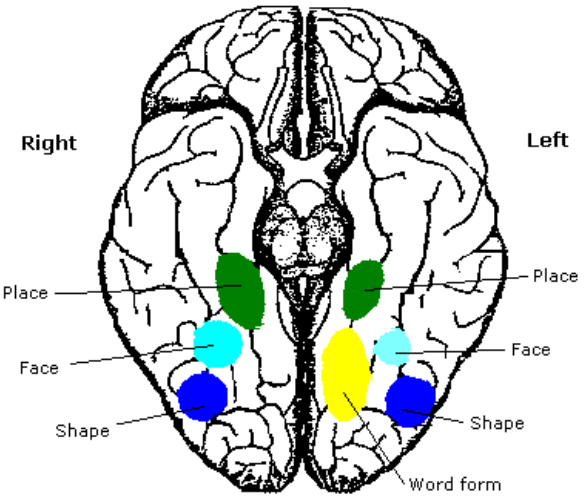
The men were again asked to press a button to indicate whether they saw a face or letter in the pattern.

Your mind on pareidolia

The results revealed that priming people to look for identifiable objects in random patterns is bound to create a few hits.

The participants reported seeing faces 34 percent of the time, and letters 38 percent of the time, despite there being none in the images they saw.

Because the researches asked participants about letter as well as faces, they were able to tease out difference in brain activity associated with mistaken identification of a letter, and those associated with mistaken identification of faces.



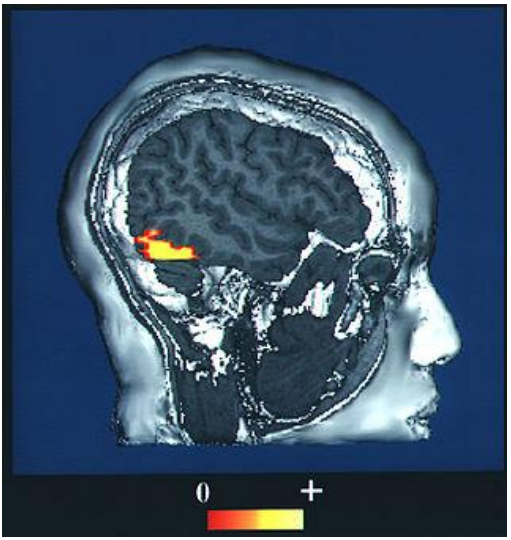
Functional Imaging Schema

They found those difference in the fusiform face area (FFA), a small region on the side of the brain, behind the ear.

This region has long been known to be involved in the recognition of faces.

Though recent research suggests that it helps people identify the difference between any objects of expertise.

A birdwatcher for example might use the FFA to tell the difference between a sparrow and a wren.



Functional MRI in Sagittal 3D T1

The Finding that the FFA is involved specially in face pareidolia fits with previous studies, the researchers wrote.

It also suggests that the region does not just activate in response to actual faces; it also appears to activate

in response to people’s belief that they have seem a face. In other words, the researcher wrote, people expectations may have led their brains to find fuzzy patterns that looked face-like, creating a false impression.

The Subtle relation between pareidolia and paranormal Images

Pareidolia is the scientific term used to describe the phenomenon of looking at an object or image and assuming to be something that it is not. i.e: the process of seeing an illusion and being fooled by it[1].

More often than not, Pareidolia is associated with paranormal, with many spotting of faces of either dead or supernatural people and fewer people Identifying things, clouds, sands, photos taken at a remote location and etc.

Many of these are presumed as fake; with some hoax enthusiast putting a background and a face or a body together and making the viewer believe that the body belongs to that background.

One of the most popular examples of this phenomenon is the incident known as the face of mars, which showed a face like figure on the surface of the mars as observed by NASA's spacecraft, Viking-1.

[1] Posted by sean foster, ghostsstrory.com

This particular image, when released by NASA, made people across the world think that there was something unnatural on Mars. But later explorations with advanced technology showed that this face was nothing but a small hill on the surface of the planet, which in correctly appeared as a face. This is one of the classic cases of Pareidolia.

While similar cases of Pareidolia exist faces of famous people appear on food like backed cookie, sandwiches or even cooked turkey for that matter, perception of an image on natural produce like fruit and vegetable, etc, a significant portion of cases are related to the paranormal, and generally create the most buzz compared to regular cases.

People are always interested in the supernatural, even though they might pretend not to be, and many hoaxers have taken advantage of this part of human nature.

A face on bread

For example, if you search for "Real ghost's pictures" or something similar on Google images, you will see an image of a metal railing against a clear sky in the top results, with a zoomed in version of the image alongside the original.

The zoomed in image contain a clear view of what you thought was a small dot in the regular image, it actually is the face of a girl with her hair in between the railings. This is another classic case of Pareidolia.

This is often the result of the human nature that tries to look for a familiar thing in an unfamiliar surroundings.

For instance, what is the first thing that you look for in a crowd of people?

For someone you know, Right.

Skull on the earth

Similarly, when presented with a weird or unnatural or lonely scene, the human brain tends to search for something recognizable, perhaps something human.

Almost all cases of Pareidolia are products of this nature.

However, not all of these occurrences can be explained and are believed to be paranormal. There have been unexplained photos of full and partial apparitions, ectoplasm or unexplained appearances of people in photos when they weren't there when the photo was taken.

Many cases though, especially with faces, even UFO sightings are prone to Pareidolia. Many fakers put it in a random image of an UFO with a background that consists of a few trees and an empty sky which is very easy to fake, and begin to circulate it.

This was more prevalent in the olden days than it is now. UFO's are considered paranormal too, and some images go as far as even showing the alien figure that is controlling the UFO.

Two Plates of clouds above mountain colored by sunset

Almost all Pareidolia images are black and white, as it is quite hard to distinguish the additions in a black and white image compared to a colored one.

Also in olden days, people could not exactly distinguish between images, as the knowledge of computer editing was largely limited to a very small group of people.

Today, however, many know how to use Photoshop, or at least identify images that have been altered by it. So the number of new appearances of Pareidolia images has reduced considerably and majority of the ones in existence are old ones.

One of the more recent Pareidolia cases is an image from twin towers crash in September 11 of 2001, in which people claimed to be able to actually see the devil's face as we know him as a figure with horns.

Devil Face in September 11

This turned out to be an illusion, as expected, but it had become viral and more and more people began to associate the image with the devil.

A classic case of paranormal Pareidolia and an example of how simple patterns in images (mostly

altered, rarely unaltered) can take form of paranormal things in the human brain and make us believe that they are something which they are not.

A made face on the earth

Mosaic patterns in nature or manufacturing

Mosaic Patterns have an irregular pattern like Gray-Scott reaction diffusion system in mathematics and like a Google earth maps from the sky and we can mimic the same findings in radiologic gray scale and 3D printings and CAD-CAM[1], Radiology working in medical science mathematics, physics and art.

The Gray-Scott reaction model displays the spatial concentration of chemical species U and V under the influence of the reaction.

Now, you can search the clouds, Mosaics, mathematics Patterns and radiologic images to find anything you want to find in two ways: Simply as just a viewer or as an artistic and scientific person such as a radiologist.

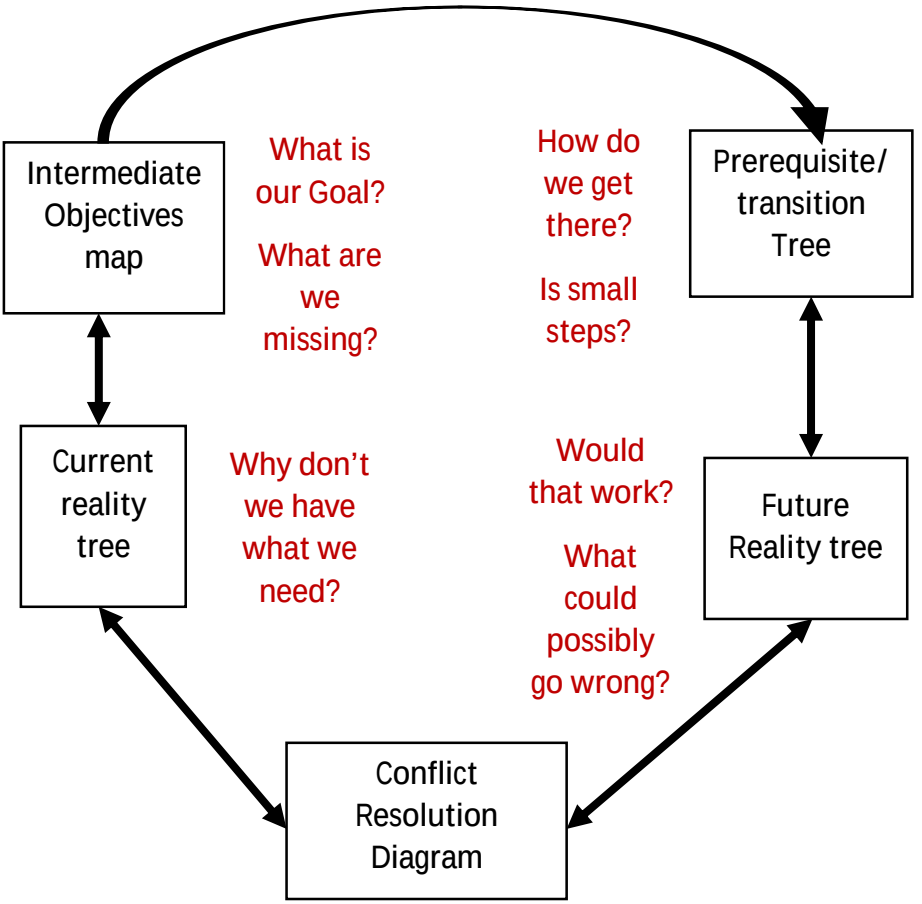
[1] Computer Aided Design and Manufacturing

Material and Method:

We never changed or edited original images of radiology that were found by chance and randomly but for similarization of natural images we changed them according to our expectations by viewing many images and editing some of them.

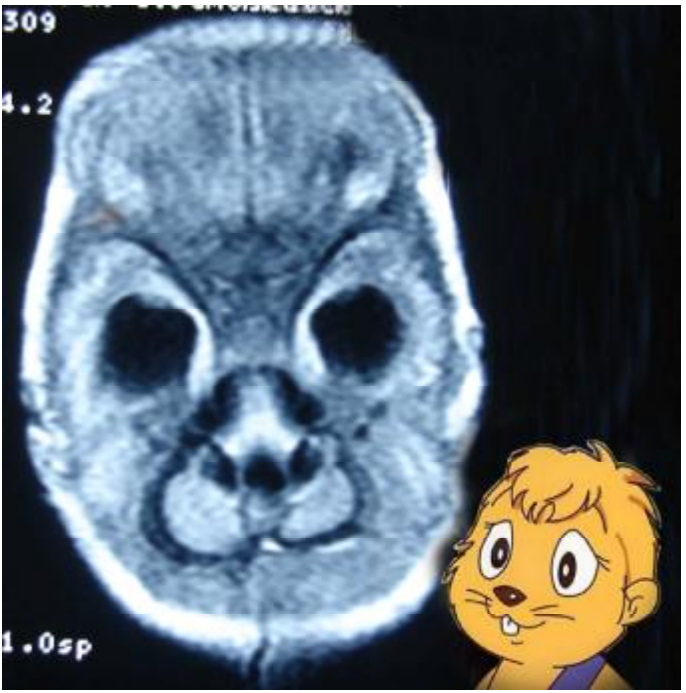
Ice Berg horse

The Logical Thinking Process



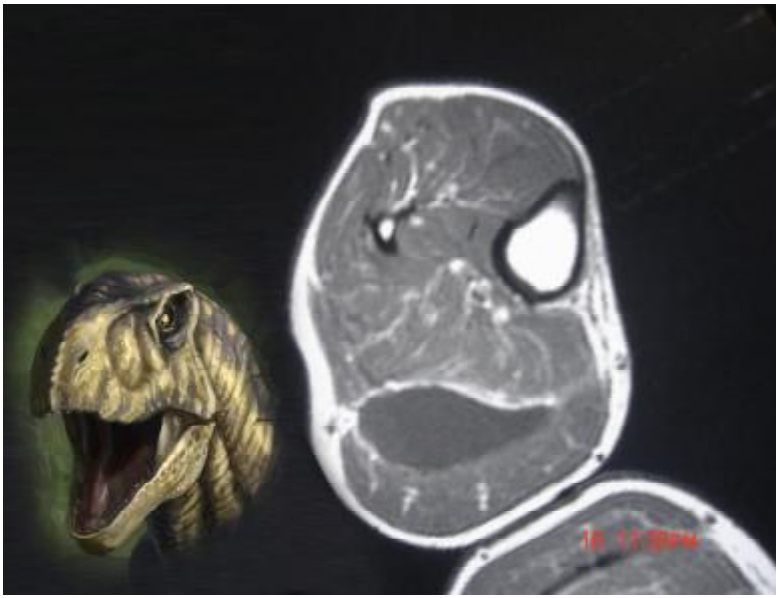
What could be done to resolve the underlying fundamental Conflict?

Chuck from “Don Chuck Monogatari”



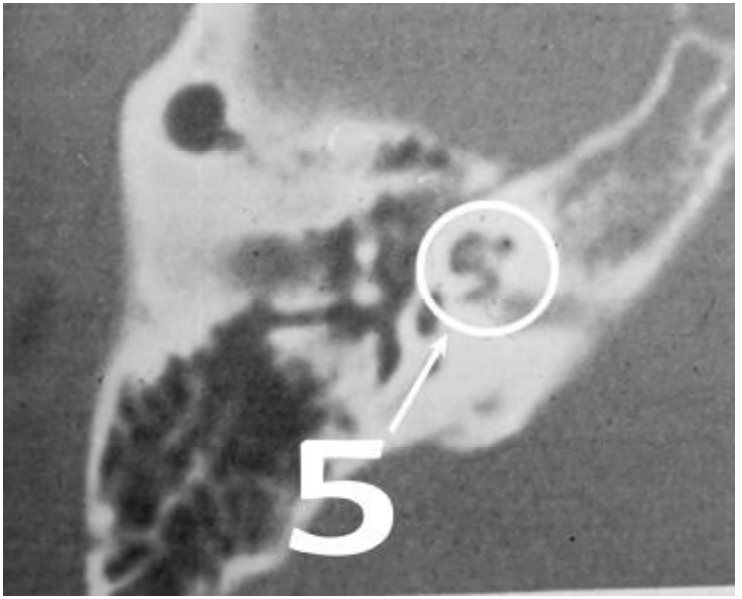
Skull base T1 MRI image of Cerebellar and brain atrophy and hydrocephaly

Dinosaur



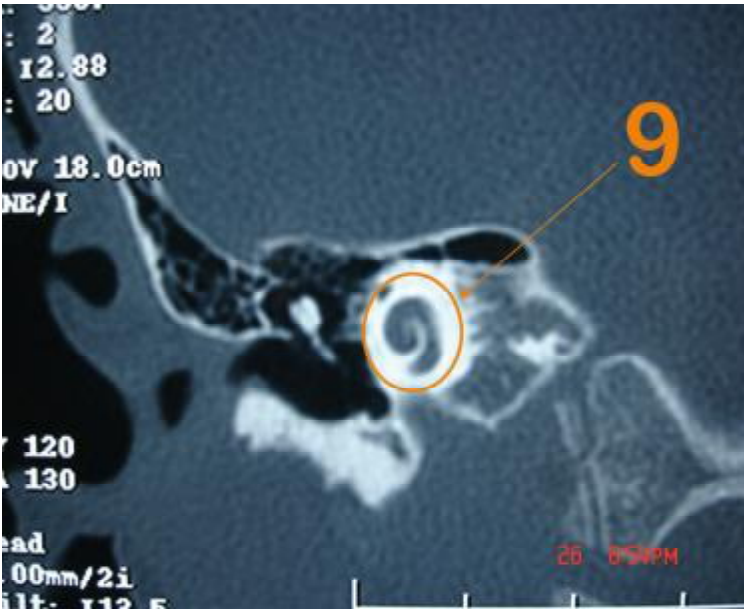
Cross Section MRI T1, Axial of The Leg
Looking a dinosaur: Dinosaur mouth is effusion in soleus gastrocnemius interface

No. 5



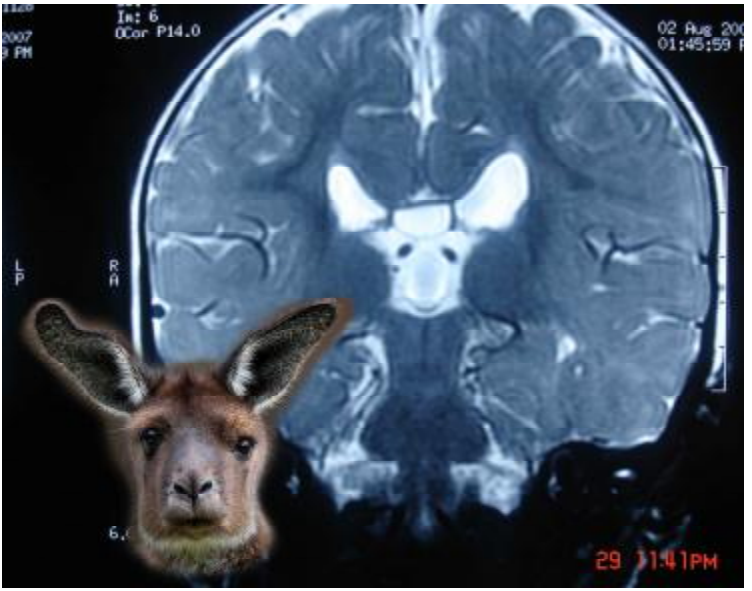
Axial CT of Cochlea mimicking number 5.

No. 9



Coronal CT of ear demonstrating number 9 in vestibulocochlear system

Kangaroo



A Kangaroo face in coronal T2 of midbrain, Quadrigeminal cistern and lateral ventricles

Bat Face

Coronal CT Scan of sacrococcyx looking like a bat face