



Rabbit medicine

น.สพ.เชาวพันธ์ ยินหาญมิ่งมงคล

สัตวแพทย์ 4 โพลีคลินิก

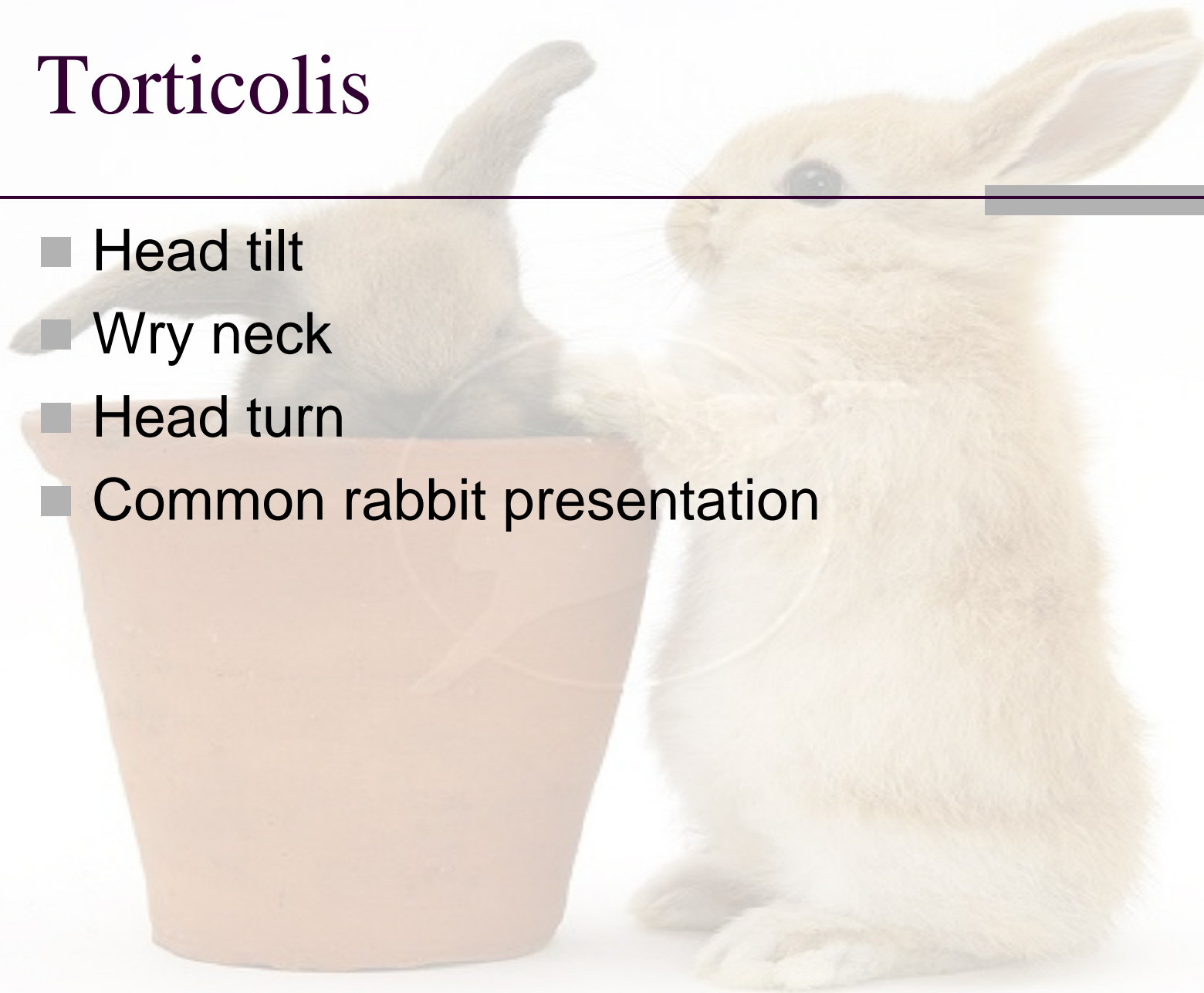
ชมรมสัตวแพทย์สัตว์ป่าและสวนสัตว์แห่งประเทศไทย

Head tilt



Torticollis

- Head tilt
- Wry neck
- Head turn
- Common rabbit presentation



Same sign Different disease

A photograph of two rabbits. One is a brown rabbit sitting inside a terracotta pot. The other is a white rabbit sitting on the ground next to the pot. The background is plain white.

- Etiology may be varied
- How to tell the difference
- Limitations
 - Lack of diagnostics

torticollis common in Rabbits

- Change in position of the head
- Slight to severe head tilt
- May be the only sign of disease



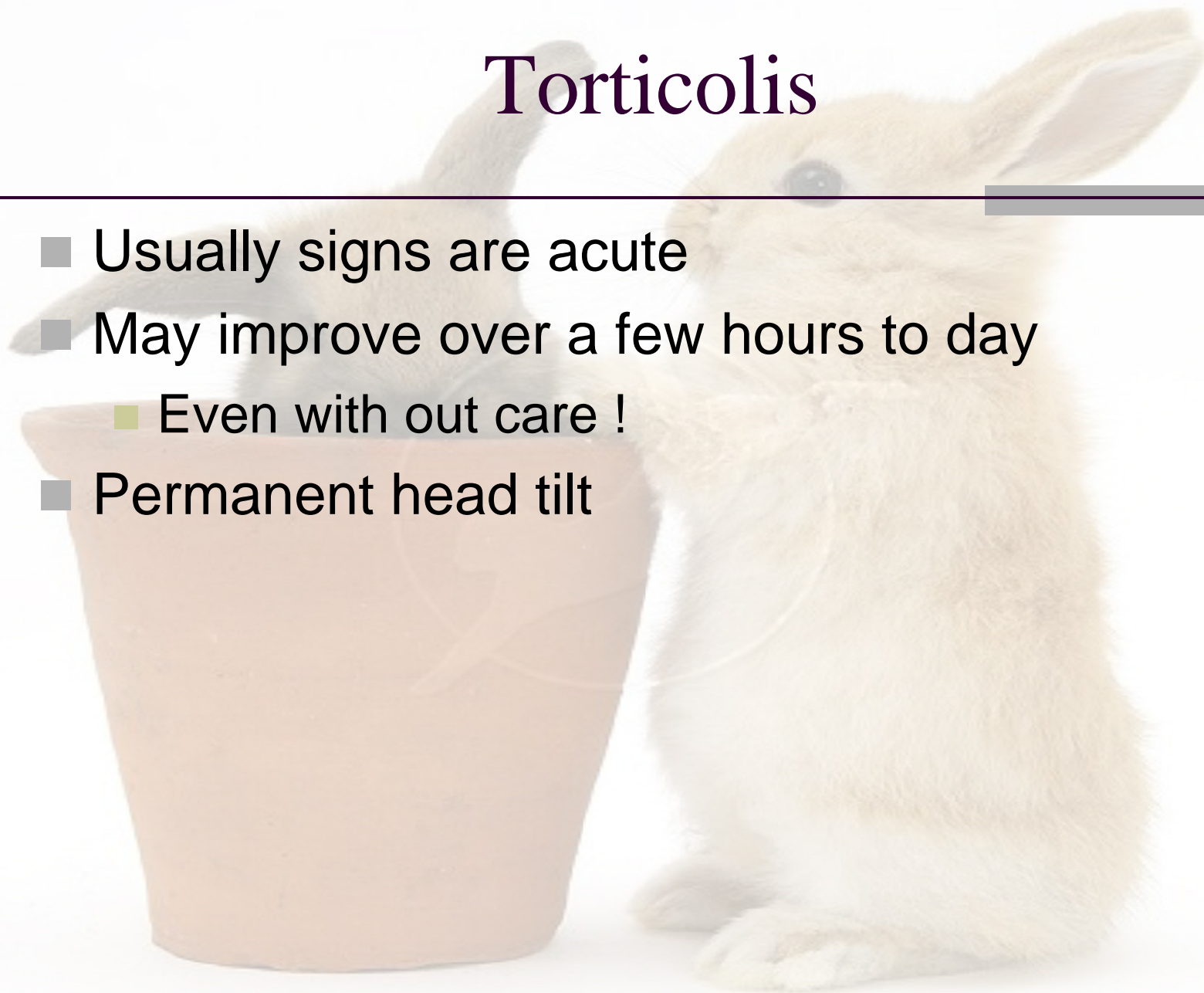
Severe Signs

- Rolling
- An inability to stand
- An inability to hop
- Anorexia



Torticollis

- Usually signs are acute
- May improve over a few hours to day
 - Even with out care !
- Permanent head tilt



Most Common Presentation

- Head cocked to one side
- One ear is closer to the ground



Head tilt

A photograph of two rabbits. One rabbit is sitting inside a light brown terracotta pot, with its head tilted back. The other rabbit is sitting on the ground next to the pot, looking towards the camera with its head tilted to the right. The background is plain white.

- Most also have Disequilibrium
 - Lost of balance
 - Leaning
 - Falling
 - Circling with a head tilt

Head Tilt

A photograph of two light brown rabbits. The rabbit on the left is sitting inside a tan plastic bucket and has its head tilted significantly to the right. The rabbit on the right is sitting on the ground next to the bucket and has its head straight. The background is plain white.

- Due to lesion of the vestibular system
 - CN 8
 - Vestibular nuclei in the rostral medulla oblongata
 - Flocculonodular lobe of the cerebellum

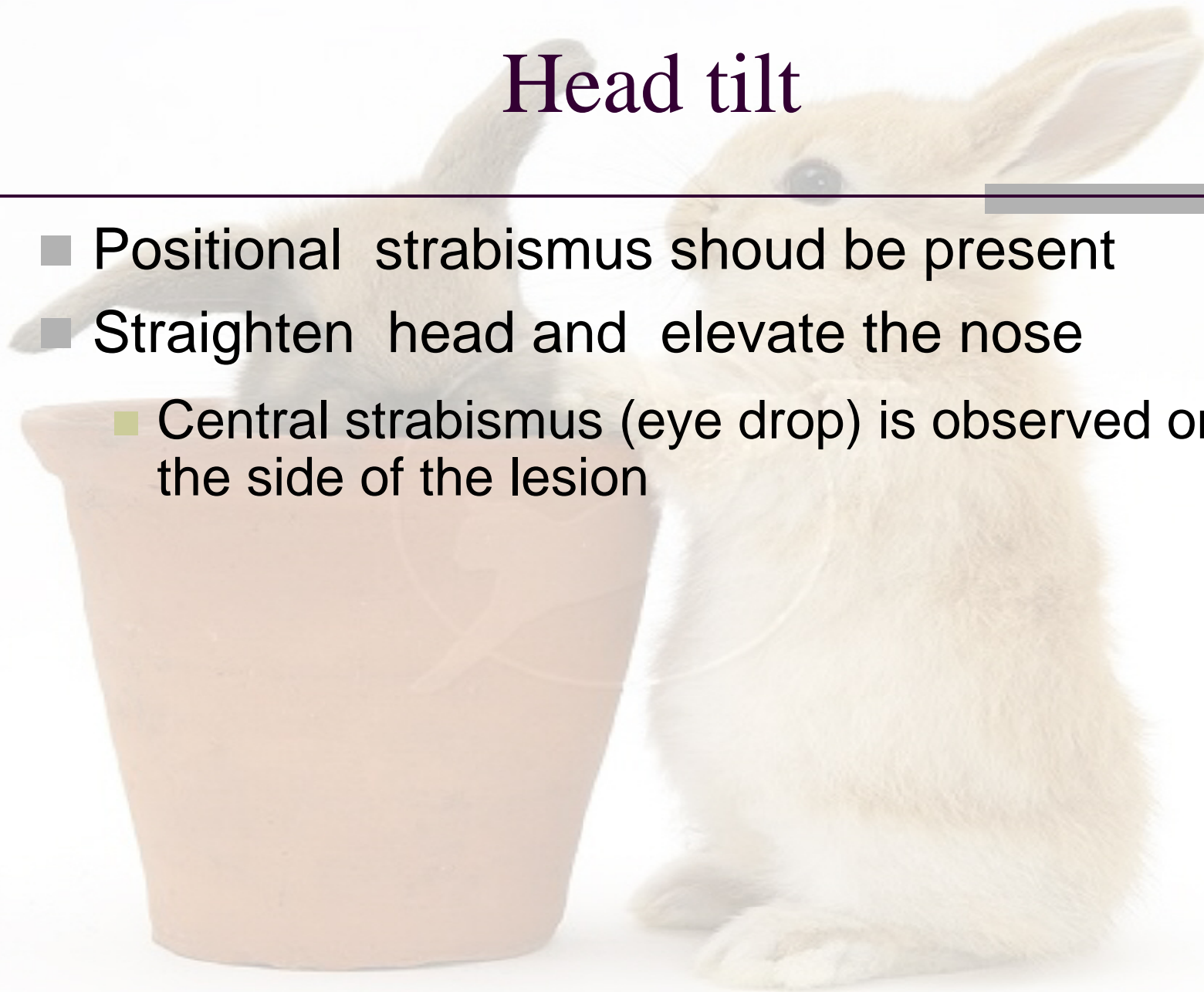
Localize the lesion Generalizations

A photograph of two rabbits. One is a light brown rabbit sitting inside a terracotta pot, with its head tilted back. The other is a white rabbit sitting on the surface next to the pot, looking towards the camera. The background is plain white.

- Vestibular nerve disease
 - Head tilts toward lesion
- Medulla oblonggata disease
 - Head tilts away or towards lesion
- Cerebellar disease
 - Head tilts away from lesion

Head tilt

- Positional strabismus should be present
- Straighten head and elevate the nose
 - Central strabismus (eye drop) is observed on the side of the lesion



Nystagmus



- Not away present
- Spontaneously occurs with head movement with vestibular system lesions
- Positional induced if lateral or dorsal

Nystagmus



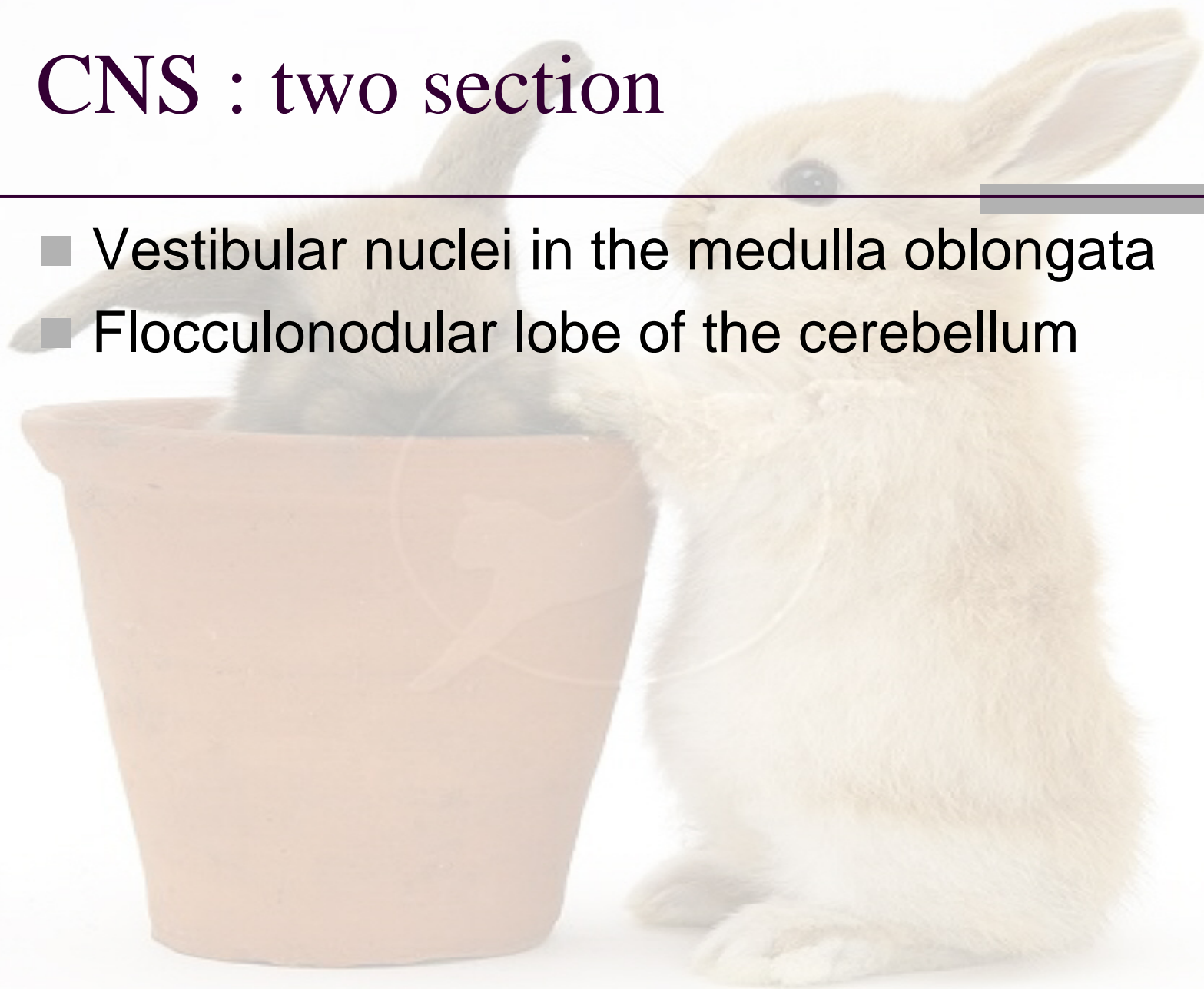
Peripheral Nervous System

A photograph of two light-colored rabbits. One rabbit is sitting inside a terracotta pot, and the other is sitting on the ground next to it. The background is plain white. There are decorative elements on the slide: a vertical olive-green bar on the left, a horizontal dark red line across the top, and a horizontal grey bar on the right.

- Sensory receptors in
 - Vestibular Labyrinth
 - CN8

CNS : two section

- Vestibular nuclei in the medulla oblongata
- Flocculonodular lobe of the cerebellum



CNS & PNS disease

A light brown rabbit is sitting on a white surface next to a terracotta pot. The rabbit's head is tilted back, and its front paws are resting on the rim of the pot. The background is plain white. A horizontal line is drawn across the image, passing through the rabbit's head and the pot.

- Incoordination
- Head tilt
- Falling/rolling
- nystagmus

PNS vs CNS



- PNS
 - Nystagmus is Horizontal or rotary
 - Nystagmus **dose not change** direction as position change
 - Postural reaction and proprioceptive **normal**
 - CN5 normal
- CNS
 - Nystagmus is Horizontal or rotary or **vertical**
 - May be **Change** direction as head position change
 - Abnormal postural reaction and proprioceptive
 - **Multiple CN deficits**
 - CN5

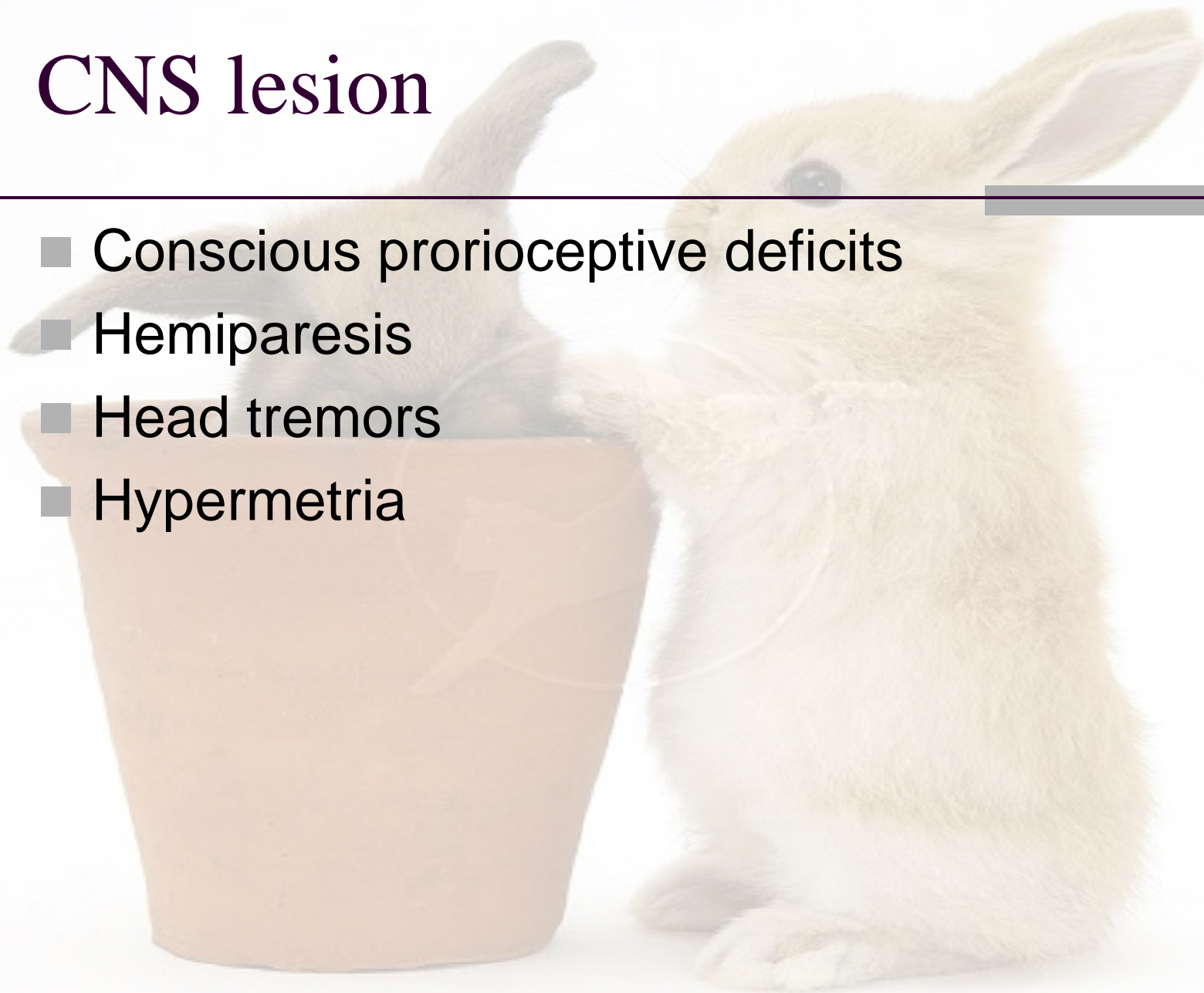
CNS vs PNS

A photograph of two rabbits. One rabbit is sitting inside a large, light-brown terracotta pot. The other rabbit is sitting on the ground next to the pot, looking towards the camera. The background is plain white. There are decorative elements on the slide: a vertical olive-green bar on the left, a horizontal dark purple line across the top, and a horizontal grey bar on the right.

- Rule outs may be different
- Treatment may be different
- Prognosis may be different

CNS lesion

- Conscious proprioceptive deficits
- Hemiparesis
- Head tremors
- Hypermetria



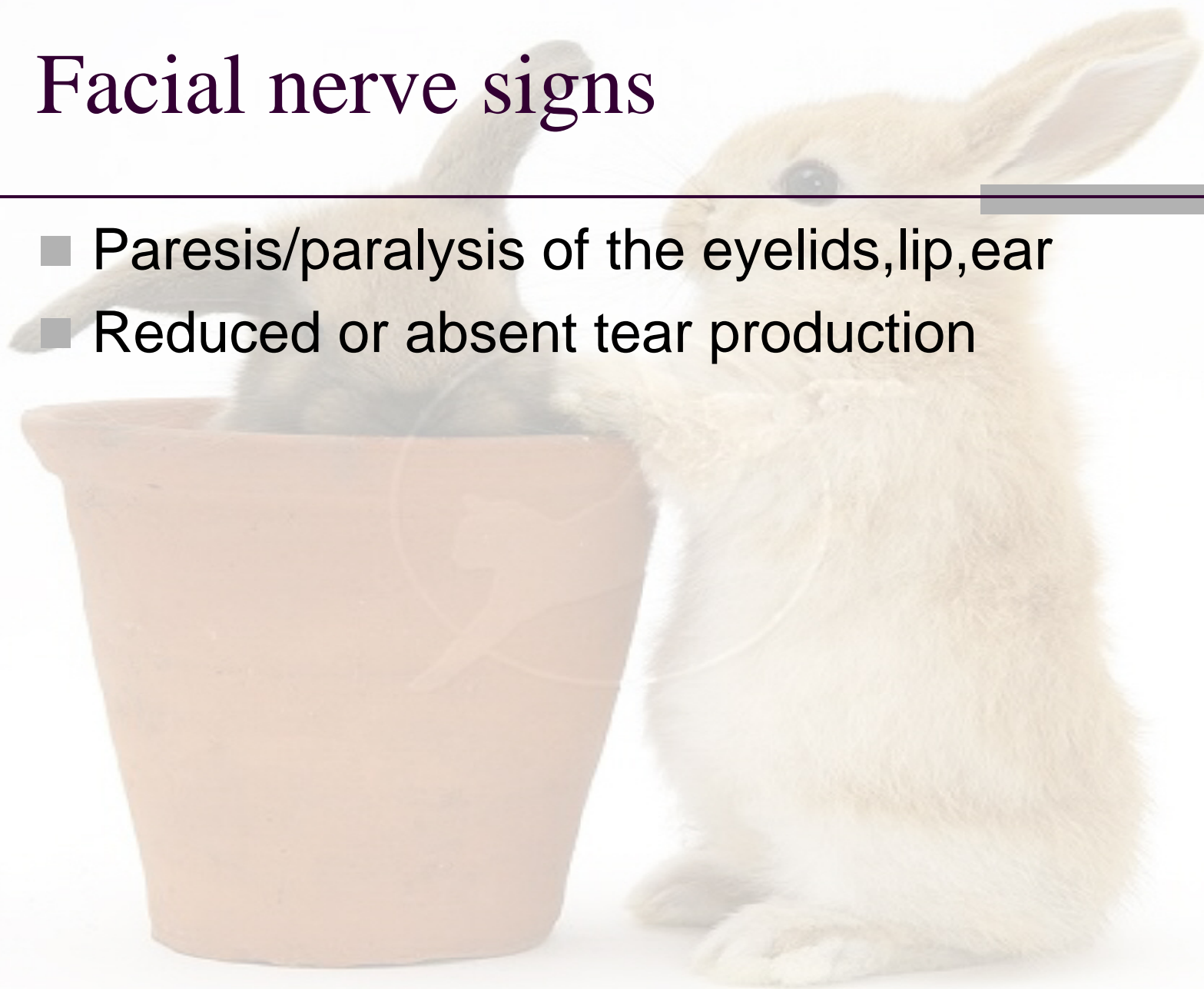
PNS lesion

A photograph of two light-colored rabbits. One rabbit is sitting inside a reddish-brown terracotta pot, with its head and one ear visible. The other rabbit is sitting on the ground next to the pot, facing left. The background is plain white. A horizontal line is drawn across the image, passing through the rabbits' heads.

- Only signs may be
 - Head tilt
 - Dysequilibrium
- Occasionally signs of facial nerve paralysis CN7

Facial nerve signs

- Paresis/paralysis of the eyelids, lip, ear
- Reduced or absent tear production



PNS disease : Rule out for dog

A light brown rabbit is sitting on a white surface next to a terracotta pot. The rabbit is looking towards the camera. The pot is partially filled with soil. The background is plain white.

- Idiopathic vestibular syndrome
- Otitis interna
- Head trauma
- Iatrogenic (ear cleaning)
- Polyps
- Neoplasia
- Aminoglycoside intoxication

PNS : rule outs for rabbits

A photograph of two light-colored rabbits. One rabbit is sitting inside a large, reddish-brown terracotta pot. The other rabbit is sitting on the ground next to the pot, looking towards the camera. The background is plain white.

- Otitis media/interna
- Head trauma
- Iatrogenic ear cleaning

CNS Disease: Rule Outs for rabbit

A light brown rabbit is sitting on a white surface next to a terracotta pot. The rabbit is looking towards the left. The pot is empty and has a textured surface. The background is plain white.

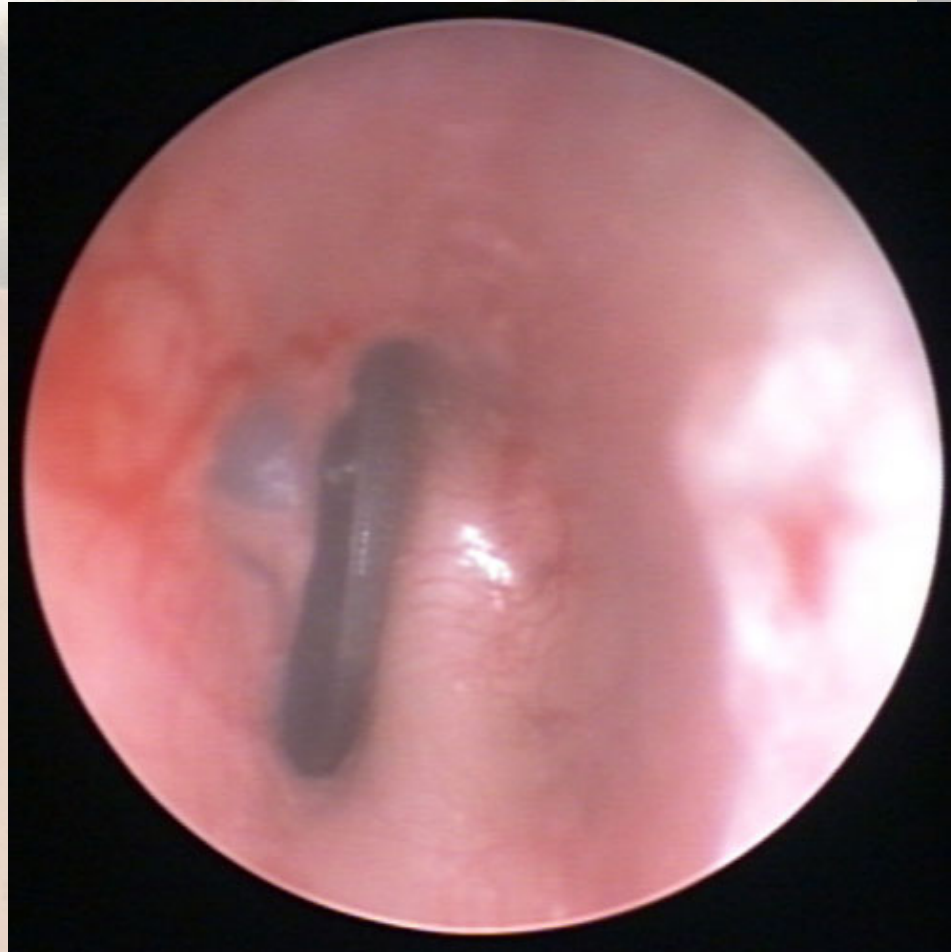
- Toxins (Lead?)
- Bacteria infections
- Degenerative disease
- Neoplasia
- Baylisascaris
- Encephalitozoon

Diagnostic : Otic Examination

A light brown rabbit is sitting on a white surface next to a terracotta pot. The rabbit is looking towards the right. The pot is on the left side of the frame. The background is plain white.

- Under sedated
- Canal and tympanic membrane
 - Fluid or Rapture membrane
- Cytology / culture

Otic examination



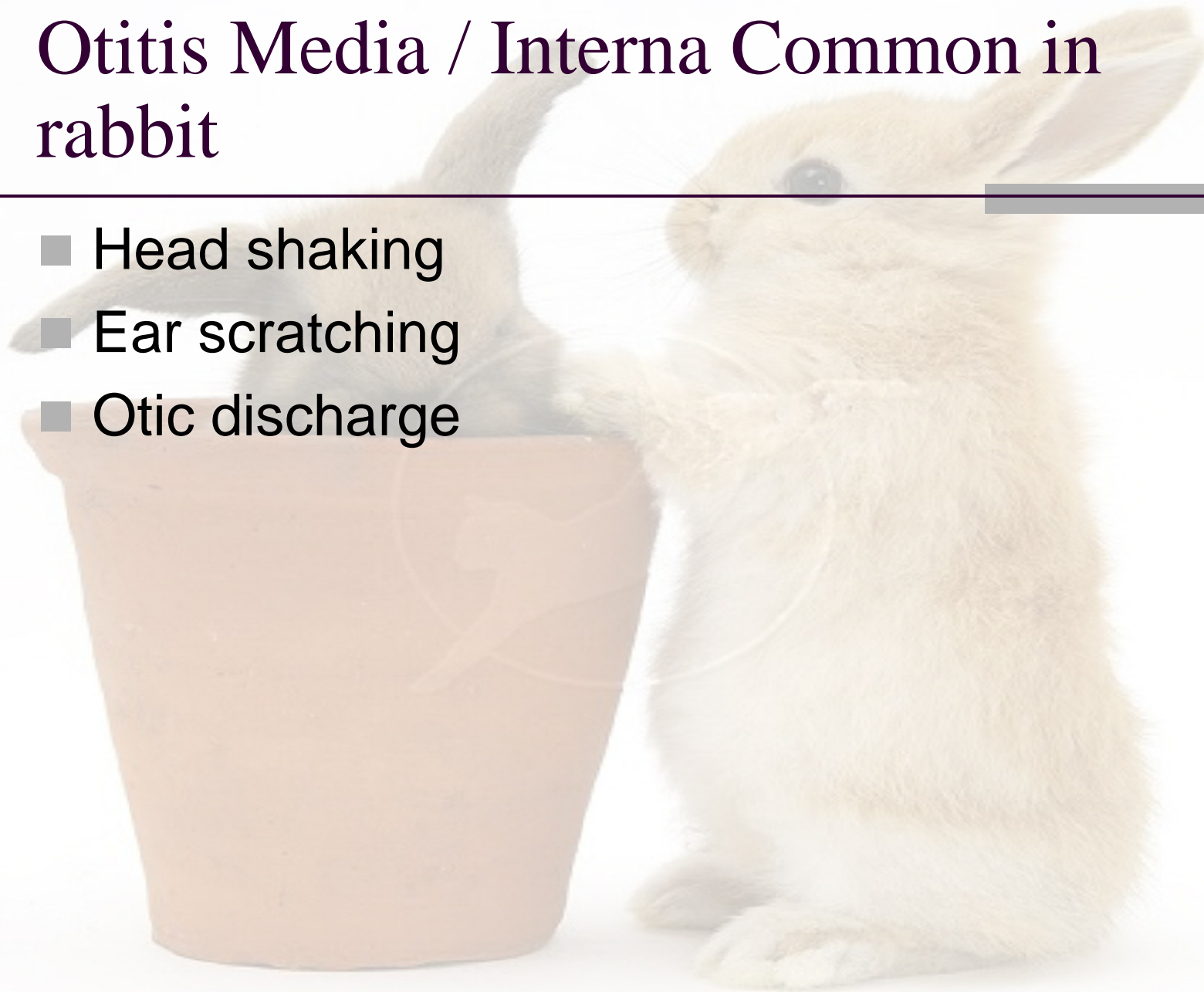
Skull Radiographs

A photograph of two rabbits. One rabbit is sitting inside a large, light-brown terracotta pot. The other rabbit is sitting on the ground next to the pot, looking towards the camera. The background is plain white.

- Under sedate
- Not sensitive method
 - Usually no changes seen
- Sclerosis or erosion of the osseous bulla
 - Chronic disease

Otitis Media / Interna Common in rabbit

- Head shaking
- Ear scratching
- Otic discharge



Prognosis

A photograph of two rabbits. One is a grey rabbit sitting inside a terracotta pot. The other is a light brown rabbit sitting on the ground next to the pot. The background is white. There is a vertical olive green bar on the left side of the slide and a horizontal grey bar on the right side.

- Differential diagnosis
 - PNS vs CNS
 - Encephalitozoonosis vs Pasteurellosis
- Mild degree prognosis good
- Eating?

Treatment

A light brown rabbit is sitting on a white surface next to a terracotta pot. The rabbit is looking towards the left. The pot is partially filled with soil and has a small plant growing out of it. The background is a plain, light color.

- Corticosteroids?
- Antibiotic
- Symptomatic treatment
- Surgery
 - Bulla osteotomy
 - Success rate ?
 - PMMA



ເອ້... ຈບຮະທີ່