Charles Bonnet Syndrome

VISUAL RELEASE HALLUCINATIONS

BY WILMA KONRAD
What is CBS

- Can affect people with partial or severe vision loss
- Halluzinations
- Mostly harmless
Who was Charles Bonnet?

- Swiss naturalist and philosopher
- Lived around 1720-1793
- First described CBS
- Suffered from it later in life
CBS

- In up to 40% of patients with vision loss
- High number of unreported cases
- Highly heterogeneous
- Permanent – temporary
- Simple – complex
- Insight into unreal nature of their hallucinations
Causes?

- CBS first described over 250 years ago, neural basis for hallucinations remains unclear
- Cortical Hyperexcitability theory
  - cerebral cortex adapts its structure and function in response to changing sensory input
  - retinal deafferentation causes hyperexcitability in visual cortex
  - neurons become more responsive to neurotransmitter release
- Supported by studies comparing electrophysiological responses
Causes?

- But why are the hallucinations so heterogeneous?

- Activity: fMRI
- different regions of visual cortex are hyperexcitable in different CBS patients
- Influences the content?
Thank you for your attention!


