## **Cerebral Cortex lesions**

Area	Lesion
Primary Motor Area	Upper Motor Neuron (UMN) syndrome (contra lateral
(area 4)	hemiplegia)
Premotor Area	Motor apraxia, spasticity, loss of postural stability
(area 6)	
Supplementary Motor	Not definite
Area	
Frontal Eye Field	Deviation of both eyes to the same side of lesion
(area 8)	
Motor (Broca's) area of	Motor aphasia (non-fluent aphasia).
speech	good comprehension, poor speech
(area 44)	
Sensory Language Area	Sensory aphasia (fluent aphasia).
(Wernicke's area)	understanding written and spoken words enables person to
(area 22, 39,40)	read and understand
Primary sensory area	Contralateral hemianathesia
(area 3,1,2)	
Visual area I	Contralateral homonymous hemianopia with macular sparing
(area 17)	
Visual area II / visual	visual agnosia and color blindness
association area)	
(dred 18, 19)	Pofley conjugate meyoment of beth eyes to ennesite side
Drimary auditory area	Reflex conjugate movement of both eyes to opposite side
(area 41, 42)	reduction of hearing acuity on both ears mainly on opposite
(died 41, 42)	Side Auditory agnosia
Tomporal Association	Auditory agriosia
(area 22)	
Posterior parietal	Asterognosis
association area	Asterognosis
(area 5.7)	
Prefrontal Association	(Alzheimer) amyloid degeneration and schizonhrenia (low
Area	donamine)
(area 9, 10, 11, 12)	

## Disease of the brain fibers

The part	Lesion
Corpus Callosum	<ul> <li>callosal Syndrome (split brain)</li> </ul>
	• Apraxia
Internal capsule	Arterial /cerebral hemorrhage in high blood pressure patient
	(contralateral side)

\* Apraxia: The inability to execute a voluntary motor movement despite being able to demonstrate normal muscle function. Lesion is mainly due to injury of posterior parietal area or the split brain syndrome due to corpus callosum injury

## Disease of basal ganglia

<b>Diseases</b> (on the opposite side)	
Hypokinetic + hypertonia	• Parkinsonism
	<ul> <li>Lesion of direct nathway</li> </ul>
	- Degeneration of donamine-producing cells in substantia
	nigra-depletion of dopamine in striatum
	- Resting tremor (N.B: intention tremor in cerebellar disease)
	- Rigidity – simultaneous contraction of flexors and extensors
	- Bradykinesia = Slowness of movement (slurred speech) and
	mask face
	- Postural disturbance
	- No loss of motor or sensory function
	- Treated by L-Dopa not dopamine
Hyperkinetic	<ul> <li>Lesion of indirect pathway</li> </ul>
	<ul> <li>Huntington's disease</li> </ul>
	- Hypotonia + hyperkinesia
	<ul> <li>hereditary disease of unwanted movements.</li> </ul>
	<ul> <li>It results from degeneration of the caudate and putamen and</li> </ul>
	produces continuous dance-like movements of the face and
	limbs – <b>choreoathetosis</b>
	• Sydenham Chorea
	<ul> <li>Rheumatic fever- transient- full recovery</li> </ul>
	• Hemiballism
	<ul> <li>Flailing movements of one arm and leg (one sided), which is</li> </ul>
	caused by damage (i.e., stroke) of the subthalamic nucleus

## Disease of CSF

Disease	
Papilledma	<ul> <li>Rise in CSF pressure compress retinal vein.</li> </ul>
	<ul> <li>Congestion of the retinal vein and bulging of the optic disc.</li> </ul>
	<ul> <li>Optic atrophy and blindness</li> </ul>