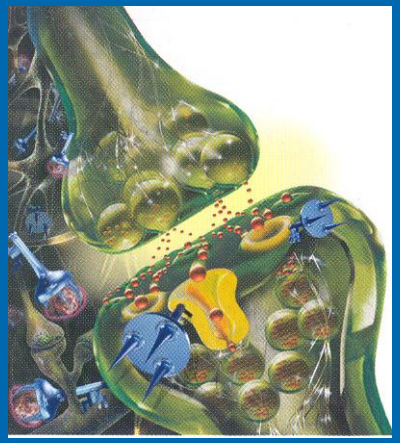
PSYCHIATRIC ASPECTS OF EPILEPSY :

INTERFACE BETWEEN NEUROLOGY & PSYCHIATRY IN CLINICAL PRACTICE



PHILIP JOHN, MD

SENIOR SPECIALIST (PSYCHIATRY)

PEEJAYS POLICLINIC &

CHILD GUIDANCE CLINIC (CGC)

COCHIN, S. INDIA

IS THERE AN INTERFACE ?

"We, our joys and our sorrows,
our memories and our ambitions,
our sense of personal identity and free will,
are all in fact, no more than the behaviour
of a vast assembly of nerve cells in the brain"

- Francis Crick (Nobel Laureate)

- Psychiatry as application of basic neurosciences –
- The same face. New Science of Mind.

MIND-BODY DICHOTOMY

- Firing of neuron to move a limb.
- "Behind every crooked behaviour,
  there is a crooked neurone !" (Mathew Abraham).
- Epilepsy is 'Brain' disease, not demonic possession :
  Hippocrates (460 – 377 BC)- "On the Sacred Disease"
- 'Mental' or 'Neuro' ?
  Mind – Body Dichotomy (Descartes). Still.
- "Saul, Saul, why art thou persecuting me" - Bible
  (no dichotomy).

PSYCHIATRIC ASPECTS OF EPILEPSY

- Psychiatric disturbances in epilepsies –
  turbulent history dating to antiquity.
- Far higher prevalence, esp with focal CPS (TL/FT)
- Not a psychological “reaction” to disease or stress.
- 30% patients in VA Hospitals on a psychiatric drug.

NEURO PSYCHIATRIC ASPECTS OF EPILEPSY

INTERFACE OR THE SAME FACE : FOCI

a. Mesio–basal temporal limbic areas. F. T.

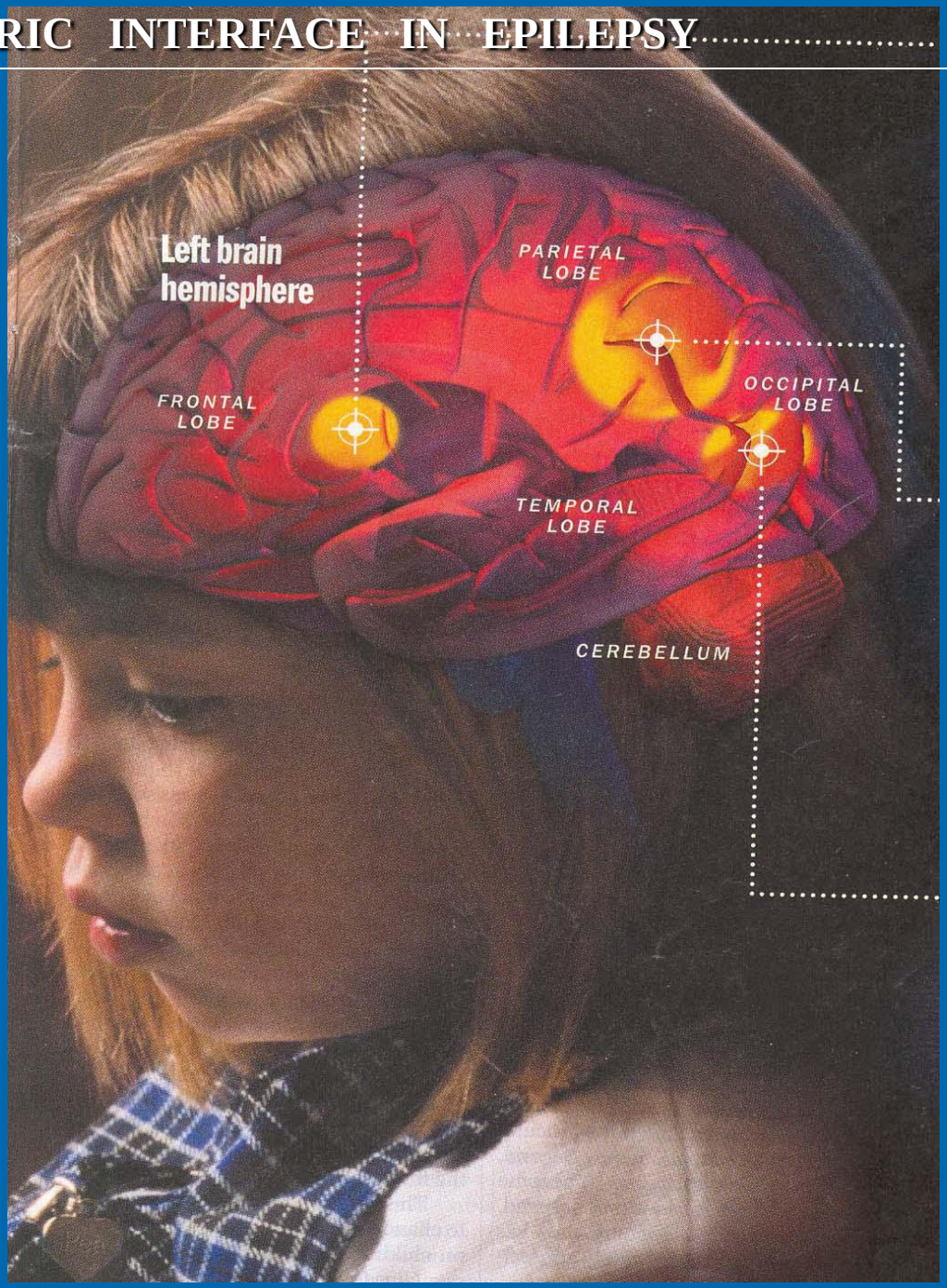
b. Similar / same pathology for source of seizures and behavioural changes.

WHAT DO THESE FOCI CAUSE ?

- Aura as integral part of ictus.
  Any sensory modality.
- Disorders of Thinking, Language, Motor, Mood, Sensations/Perception etc.

Focal neuronal discharge in a specific part of the brain leading to that specific dysfunction.

NEURO PSYCHIATRIC INTERFACE IN EPILEPSY



BEHAVIOUR DISORDERS WITH EPILEPSY

DISCUSSION

4 Rubrics

I. ICTAL (Psychic symptoms as epilepsies)

II. PERI-ICTAL (Pre-ictal, post, and mixed)

III. INTER-ICTAL (Psychosis, P. D.)

IV. NON-SPECIFIC (Mood, Suicide, Aggr, Hyst.)

BEHAVIOUR DISORDERS WITH EPILEPSY

ICTAL DISORDERS

a) Ictal Psychic Symptoms (as ictus)

b) Non-convulsive status in SPS, CPS etc producing alt/sensorium and behaviour

BEHAVIOUR DISORDERS WITH EPILEPSY

I. PSYCHIC SYMPTOMS AS ICTUS : SUBTYPES

(i) Thinking dist.
(ii) Language dist.
(iii) Motor Behr dist.
(iv) Aggression
(v) Affect

(vi) Auditory
(vii) Olfactory
(viii) Visual
(ix) Vertiginous
(x) Abdom/Alimentary
(xi) Gustatory

(xii) Reflex Epilepsies
(xiii) Miscellaneous (Cursive, Gelastic etc..)

PAROXYSMAL, STEREO TYPED

I. ICTAL PSYCHIC SYMPTOMS

(i) Ictus with Disturbance in THINKING

- Clouded Consciousness
- Dreamy state clouded with hallucinations /illusions.
- Experiential Hallns : Living the past. Vivid.
- Déjà vu , jamais vu.
- Visual / Auditory illusions.
- Depersonalisation / autoscopy – observing self.
- Derealisation : unreal / changed.
- Obsessive thoughts / repetitive, irresistable.
- Dostousky : ‘ecstatic aura’ : “I’d give my life…”

I. ICTAL PSYCHIC SYMPTOMS

(ii) Ictus with disturbances in LANGUAGE

- Dysphasia
- Speech automatisms with neologisms
  - Amnesia for the episode

I. ICTAL PSYCHIC SYMPTOMS

(iii). Ictus with Complex MOTOR BEHAVIOUR

- Automatisms with amnesia. Confused behaviour.
- FORCE MET BY FORCE – unconscious response
- Repetitive behaviour (motor / verbal).
- Complex acts like undress / arrange room.
- Fugue States: travel hours / days – clouded.
- May use complex transportations,
  or drive obeying traffic lights – amnesic.

I. ICTAL PSYCHIC SYMPTOMS

(iv) Ictus with AGGRESSION

- Aggressive automatisms, sometimes with exhibitionism – amnesic
- Paroxysmal explosive behaviour – amnesic
- Reactive phenomenon when resisted
  - clouded consciousness

I. ICTAL PSYCHIC SYMPTOMS

(v) Ictus with AFFECTIVE Symptoms

- Fear – in 80% of CPS
- May have asso. hallucinations or ANS ↑
- Amnesia for all, except the fear
- Pleasure – rare. Laughter (with recall)
- Aware, yet unable to control

I. ICTAL PSYCHIC SYMPTOMS

(vi) Ictus with AUDITORY symptoms

- Auditory hallns. – elementary, mostly unformed. (contrast with psychosis)
- Rhythmic / intermittant.
- Hallucinatory pealing of bells.
- Most formed / complex in this type.
- St. Pauls experience.

I. ICTAL PSYCHIC SYMPTOMS

(vii) Ictus with OLFACTORY symptoms

- Common: an intense halln of smell.
- Powerful, unpleasant : ‘bad eggs’, ‘foecal’.
- Often followed by generalisation
- Smell of flowers
- Acc. by BLM automatisms / clouded consc.
- Uncus of hippocampus – old ‘uncinate’ fits.

I. ICTAL PSYCHIC SYMPTOMS

(viii) Ictus with VISUAL Symptoms

- Elementary / Complex visual hallucinations.
- Visual hallucination as ‘organic’.
- Scintillations / Scotomata.
- Usually, paroxysmal, poorly sustained.
- Unusually, formed hallucinations.

I. ICTAL PSYCHIC SYMPTOMS

(ix) Ictus with VERTIGINOUS Symptoms

- Common but unrecognised –
  sense of spinning on Vertical axis
- Unsteadiness of gait
- Crude visual / and hallucinations
- Epigastric sensations / ‘dreamy state’
- DD is difficult

I. ICTAL PSYCHIC SYMPTOMS

(x) Ictus with GUSTATORY symptoms

- Difficult to distinguish from olfactory CPS.
- Both associated with BLM automatisms.
- Both do have ‘dreamy’ state.
- Mostly bitter taste, occasionally pleasant.

I. ICTAL PSYCHIC SYMPTOMS

(xi) Ictus with ALIMENTARY symptoms

- Relatively common. In CPS, more so in children.
- 'Butterflies in the stomach'. Abd. pain.

  Desire to defecate. Difficult D/D.
- Paroxysmal, brief pain with alt/responsiveness.
- Partial amnesia.

I. ICTAL PSYCHIC SYMPTOMS

REFLEX EPILEPSIES

- External sensory stimulus precipitates seizure
- Hot water – Prof. K.S. Mani.
- Musicogenic for eg. to specific themes, sounds or tones
- Reading -- ? Languages.
- Arithmetic – esp. computation.

Associated with alteration of sensorium and responsiveness

I. ICTAL PSYCHIC SYMPTOMS

MISCELLANEOUS

- Cursive epilepsy, with compulsive running.

  Confused, amnesic. Generally avoids dangers. 15 to 30 mts. Generalisations.

- Gelastic epilepsy – laughter is unprovoked inappropriate, paroxysmal. Amnesia.

- Autonomic epilepsy – rare.
  Severe ANS arousal. May follow intense emotions.

  D/D Panic attacks.

NEUROPSYCHIATRIC INTERFACE : FOCI

MEDIOBASAL TEMPORAL, LIMBIC, FRONTAL, TEMPORAL (INTEGRATIVE) CORTEX etc.

- **Déjà vu, jamais vu : Mediobasal Temporal**
- **Twilight, al/time, Dereal etc : Mediobasal Temporal**
- **Forced thoughts, Obs. Thoughts : Frontal**
- **Affective : fear / pleasure : Mesobasal Temporal**
- **Illusions – dysmegalopsia etc : Sup. Temp. neocortex**
- **Hallucinations/Perceptual/exp : T. integrative Cortex/ mesobasal Temporal**

PAROXYSMAL, OFTEN STEREOTYPED

II. PERI - ICTAL MANIFESTATIONS

- PRE-ICTAL – prodrome. Dysphoria.
- POST-ICTAL confusional states. Weeks.
- PERI-ICTAL psychosis

i. Concomitant psychosis with seizure – brief

ii. Alternating psychosis (n EEG vs Psychosis)

forced normalisation (Hari).

Terminated by seizure.

iii. Post – ictal psychosis – confusional state.

III. INTER – ICTAL PSYCHOSES & PERSONALITY DISORDERS

- Chronic Schizophreniform (Paranoid)
- Epileptic Personality Disorder
- Borderline Personality Disorder (unstable)

VI. EPILEPTIC PERSONALITY

- No Specific Epileptic Personality
- But, constellation of characteristics are compelling

- CPS (temp. limbic focus)
- “Sticky”, serious, humorless
- Circumstantial, Perseveration
- Dependent, maximising problems
- Deterioration of Personality ?Dementia.

BEHAVIOUR DISORDERS : NON SPECIFIC

(A) Mood Disorders

- Co-morbid Mood fluctuations (twice as common)
- Not a psych. reaction to disability
- Depression much more common than Mania

(B) Suicide

- Risk of suicide 5 times greater
- CPS - greater risk (20 times greater)
- Suicidal intent great
- Greater risk with control of seizure

BEHAVIOUR DISORDERS : NON SPECIFIC

(C) Sexuality

- Decreased libido
- Lose erotic fantasies
- ED / frigidity common
- Hyposexuality related to seizure events
- Occ. public hypersexuality

(D) Aggression

- Epilepsy not a cause for premeditated violence
- Aggression during ictus, ‘epileptic furor’ (post ictal)
- On obstructing automatisms
- Explosive / P. D. factors

ASSOCIATIONS

- Developmental Disorders
  - Pervasive Developmental Disorders (PDD)
  - ADHD, Learning Disorders (LD)
- Sleep Disorders
  - Parasomnias (both REM/NREM)
- Epilepsy syndromes with Beh. Disorders
  - LGS, WS, JME, LKS, etc.
- Hysterical fits

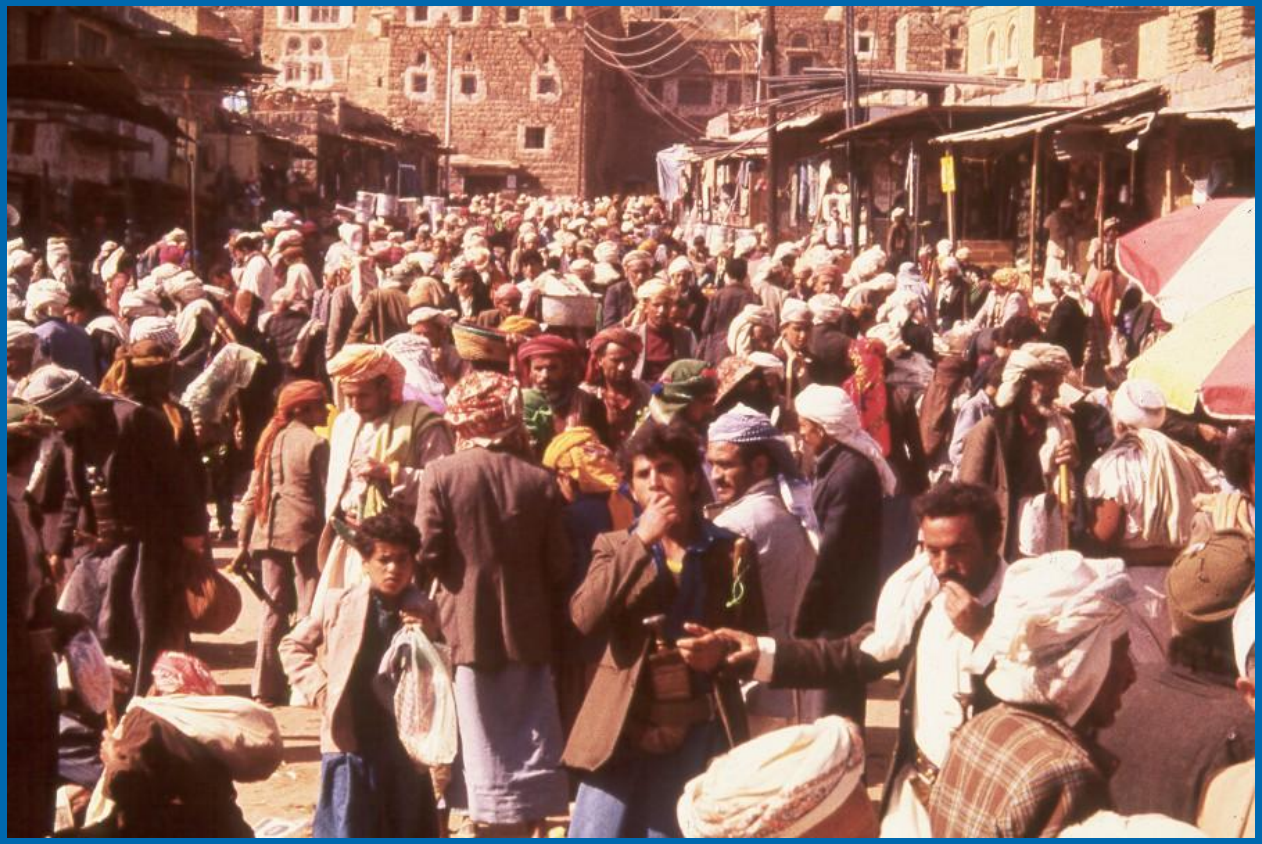
HYSTERICAL FITS

- Not ‘malingering’.
- BPM syndrome
- Struggling, thrashing, rolling, pelvic thrusting. Asynchronous. Non-stereo typed.
- Injuries rare; careful loss of posture
- Drama in recovery

- Adducted thumb into palms (seizure)
- Extended lower limbs (seizure)
- Dilated pupils & extension plantar (coma phase)

NEURO-PSYCHIATRIC INTERFACE

- Is it Epilepsy ?
- What Type ?
- What Associations ?
- Which Drugs ?
- What Adjuncts in Treatment ?



Thank you for your attention