Archives
(Ban Collection)
April 30, 2015

From Tryptophan in Insomnia to Polymorphism of Tryptophan Hydroxylase in Bipolar Disorder

PASSAGES

FRANCOIS FERRERO'S
contributions to research and education in neuropsychopharmacology.

Passages

1950s

INTRODUCTION OF FIRST SET OF PSYCHOTROPIC DRUGS

1980s

PHARMACOTHERAPY PRIMARY TREATMENT MODALITY IN PSYCHIATRY

COMPLEMENT

TRAINING IN PSYCHOANALYSIS AND PSYCHOTHERAPY WITH PSYCHOPHARMACOLOGY & PHARMACOTHERAPY

PASSAGES 1
Geneva

FRANCOIS FERRERO
EARLY 1980S.

chef de clinique
Centre Psycho-Social Universitaire Geneve,
Boulevard St. Georges

PASSAGES 2
(1st project)
Geneva

Depletion of brain serotonin caused insomnia and repletion of the depleted serotonin restored sleep
(Michel Jouvet, Science 1969)

Tryptophan in the treatment of insomnia in hospitalized psychiatric patients
(Ferrero & Zahnd, Encephale 1987)

PASSAGES 2
(1st project)
Geneva

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Administration of tryptophan increased brain serotonin indicating that
TPH was not fully saturated normally with its substrate
(Fernstrom & Wurtman, Science 1971)

In a placebo-controlled clinical trial
no decrease in sleep latency with
250 or 500 mg of tryptophan
(Ferrero and Zahnd, Encephale 1987)

PASSAGES 3
(2nd project)
Nashville
Division of Psychopharmacology, Department of Psychiatry, Vanderbilt University

MID-1980S

Pharmacological heterogeneity within psychiatric diagnoses precludes the identification of biological markers that could guide development of rational pharmacological treatments.

Activities shift from testing efficacy of new drugs to the development of diagnostic instruments for identifying pharmacologically homogeneous psychiatric populations.

PASSAGES 3
(2nd project)
Nashville
Division of Psychopharmacology, Department of Psychiatry,Vanderbilt University

DCR BUDAPEST-NASHVILLE

structural psychopathology & psychiatric nosology

524 variables

interview: presence or absence

diagnostic decision tree

diagnoses

Leonhard's diagnostic concepts of "endogenous psychoses,"

Scandinavian diagnostic concepts of "psychogenic psychoses"

French diagnostic concepts of "delusional psychoses."

PASSAGES 3
(2nd project)
Nashville
Division of Psychopharmacology, Department of Psychiatry, Vanderbilt University

Responsiveness to neuroleptics varied from less than 1 in 4 (systematic habephrenia) to more than 4 in 5 (affect-laden paraphrenia) in Leonhard's classification of endogenous psychoses. (*Fish, Encephale 1964.)*

Inverse relationship between the prevalence of tardive dyskinesia and responsiveness to neuroleptics (13.6%: 4.5% - 53%.) *(Guy, Ban and Wilson, Prog Neur-Psychopharmacol*

1985; Guy, Ban and`Wilson, Int. Clin Psychopharmacol 1986; Ban , Psychopathology 1990.)

PASSAGES 3
(2nd project)
Nashville
Division of Psychopharmacology, Department of Psychiatry,Vanderbilt University

DCR Budapest-Nashville in the Diagnosis and Classification of Functional Psychoses

Pethö B, Ban TA, Kelemen A, Ungvári G, Karczag I, Bitter I, Tolna J, Jarema M, *Ferrero F,* Aguglia E, Zurria G, Fejetland O

(Psychopathology 1988; 21: 153-240.)

Eugenio Aguglia, Trieste, Italy

Istvan Bitter, Budapest, Hungary

Francois Ferrero, Geneva., Switzerland

Marek Jarema, Warsaw, Poland

PASSAGES 3
(3nd project)
Nashville-Lausanne-Geneva

CODE-DD

polydiagnostic instrument

(Kraepelin – DSM-III-R)

90 variables

structured interview: presence or absence

25 diagnoses

Ban TA. CODE DD Composite Diagnostic Evaluation of Depressive Disorders. Brentwood: JM Productions; 1989.

PASSAGES 3
(3rd project)
Nashville

MAJOR DEPRESSION (DSM-III-R

1 of 3 patients responded to TCAs

40 % of qualified for CODE-DD's ***Melancholia***

unmotivated depressed mood, depressive evaluations, lack of reactive mood changes

30% qualified for Kraepelin's ***Depressive States***

lack of drive, motor retardation, thought retardation

less than 20% qualified for Kurt Schneider's ***Vital Depression****

corporization, disturbance of vital balance, feeling of loss of vitality.

***Kuhn 1957**

Ban TA. Progress in Neuro-Psychopharmcology & Biological Psychiatry 1987; Neuropsychopharmacologia Hungarica 2007.

PASSAGES 3
(3nd project)
Geneva-Lausanne

Ferrero, Degeilh and Sarbu-Biro (1989)
CODE-DD assigned a diagnosis of bipolar disorder to twice as many patients as patients' attending psychiatrists.

Francois Ferrero
avec la contribution de
Marc-Antoine Crocq et Jean-Francois Dreyfus

Thomas A. Ban CODE-DD Evaluation diagnostique composite des troubles depressifs
Edition francaise. Editions Medecine et Hygiene, Genève 1992

Passages

1990s

schizophrenia: from "typical" to "atypical" neuroleptics

depression: from TCAs to SSRI

dementias: "cognitive enhancers" with cholinomimetic effects

bipolar disorders: anticonvulsant "mood stabilizers"

indications extended:

- antidepressants to anxiety disorders
- atypical neuroleptics to bipolar disorders

methodology:

- single center trials replaced by multi-center trials
- (power statistics to prevent Type II error)
- analyses of individual studies complemented by meta-analyses
- (information in education is not compromised)

replacement: "problem-oriented medicine," by "evidence-based medicine."

Passages
(4th project)
Geneva

First "evidence based" text, in the Pharmacotherapy of Bipolar Disorders

Jean Michel Aubry, Francois Ferrero et Nicholas Schaad.

Pharmacothérapie des troubles bipolaires

Genève: Editions Médecine & Hygiene: 2004

Prize in Specialized Medicine at the 3rd Festival of Medical Books in France.

Revised English edition (Wiley & Sons) 2007.[1]

Passages

2000-2010

Neurotransmitter era is succeeded by molecular genetic era

Neuropsychopharmacology links clinical and neuronal effects

Targets of drugs encoded by genes identified

Perspective for developing etiological and not just rational treatments

Pharmacological heterogeneity within diagnoses precludes identification of suitable end-points for molecular genetic research in mental illness.

Passages
(5th Project)

2000-2010

Martin Pressig, Francois Ferrero and Alain Malafosse

Monoamine oxidase A and tryptophan hydroxylase gene polymorphisms: are they associated with bipolar disorder?

Am J Pharmacogenomics 2005; 5: 45-52.

Associations between polymorphism of the tryptophan hydroxylase genes and bipolar disorder are inconsistent. Majority of studies did not provide evidence for an association between these genes and bipolar disorder.

Passages

Since I first met Francois a quarter of century has passed.
While I had the privilege of introducing him to
neuropsychopharmacology,
today
it is Francois' textbook that guides me and others in evidence-based
pharmacological treatment of bipolar disorders

Passages

I would like to thank you again for inviting me to celebrate Francois' entering a new phase in his professional life.

Thomas A. Ban

April 30, 2015