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**UNIVERSITY OF MEDICINE AND PHARMACY  
CRAIOVA  
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**DOCTORAL THESIS**

**SUMMARY**

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CLINICAL AND ETIOLOGY ASPECTS IN THE RESISTANT AND  
REFRACTORY SCHIZOPHRENIA

THERAPY WITH ATYPICAL ANTIPSYCHOTIC  
AGENTS IN SCHIZOPHRENIC  
PATIENT CARE

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**SUMMARY**

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KEY WORDS

SCHIZOPHRENIA = mental disorder characterized by fundamental and characteristic distortions of thinking and perception, and the affects that are inappropriate and used. Clear consciousness field and intellectual capacity are usually maintained although certain cognitive deficits can be installed during time. The disorder involves basis functions, giving a person a sense of uniqueness, identity and autonomy.

ANTIPSYCHOTICS = drugs that represent chemotherapy of choice in schizophrenia. Several methods are known of the neuroleptics. The most important current classification is the clinical-medical one.

NEUROTRANSMITTER = Are substances released synaptic and provide the transmission of nervous impulse with the ability to trigger action potentials.

DOPAMINE = Neurotransmitter on synthesis ways of adrenaline and noradrenalin.

SEROTONIN = monoamine derived from an essential tryptophan amino acid, which under the influence of TRH passes in 5-hydroxitriptofan and this after decarboxylation generates 5-HT.

NORADRENALINE = mediator of vegetative sympathetic postganglionic nerve endings present in the peripheral vegetative effectors.

RECEPTORS = Membrane proteins specialized both in the identification and acceptance of the neurotransmitters and other molecules characterized by high specificity.

CLASSIC NEUROLEPTICS = acts favorite on positive symptoms.

ATYPICAL NEUROLEPTICS = acts favorite and with superior efficacy on positive symptoms, negative primary and cognitive, with minimal or absent extra pyramidal effects, and the absence of increased secretion of prolactin after chronic administration.

CLOZAPINE = minimal positive and negative symptoms effective in schizophrenia, but also in tardive dyskinesia.

RISPERIDONE = establishes and maintains a satisfactory antipsychotic effect at a dose of 4 mg / day with minimal risks for extra pyramidal effects.

OLANZAPINE = increased affinity for the receptors rD2 and r,5-HT2A, but also for the receptors 5-HT2C and 5-HT6. Occupies majoritary the receptors D2 and 5-HT2A with the improvement of the post-schizophrenia depressive symptoms treated with Olanzapine.

SERTINDOLE = is effective in relieving the negative symptoms due to the affinity for the dopamine receptors D2.

QUETIAPINE = acts with predilection on rD4.

OMS = World Health Organization.

DISABILITY = disorder in minus and a deficiency of a human action that is based on one or more post-maladive deficiencies. For example: the difficulty of communication, walking, efficient resolution of some personal and community problems.

DEFICIENCY = persistent dysfunction of the human bio-psychological body, consequent to suffering a disease and based on violating (and/or disturbing) an organ or an individual functional system (deficiencies of vision, movement of legs, memory usage, etc.).

DISABLED = is the sum of the negative social consequences resulting from the deficiencies based on disabilities, consecutive to some chronic diseases or that leave defects. Thus, the disability can occur towards a profession, on the full manifestation socially or publicly, the support for the good of the family and household, etc.

SCALE = scale of measurement or evaluation of the symptoms or the clinical condition following the administration of the antipsychotic therapy.

GAF = Global Assessment of Functioning - global scale of assessment of the function.

PANSS = Positives and Negatives Symptom Scale - Scale of the positive syndrome and the negative syndrome in schizophrenia.

CGI = Clinical Global Impression - scale of the global clinical impression.

BECK = Depression Rating Scale.

BARS = BARNES scale of assessment of the drug-induced akathisia.

IMC = body mass index.

WHOQOL-BREF = abbreviated version of the scale WHOQOL-100 Rates the patients life quality that occur during the treatment.

Searching for other classes of drugs has become a constant concern of the psychiatrists and staff of psychopharmacological research in finding a common major secondary phenomenon in patients with long-term treatment with antipsychotics, including dyskinesias and cognitive disorders are the cause of the socio-professional invalidation. After Sereiski, the mental patients emissions can be grouped into four types:

- a. the patient gets back to work, is re-inserted into the family and society;

b. continuing the professional activity is made at a level below that previously had, inconsistent with the professional training; social and family reintegration is good;

c. the family reintegration is made with the family commitment on the part of its supervision: the patient can perform some tasks, as an occupational therapy;

d. The patient requires specialized institutional care as a result of the persistence of a symptom that makes impossible the reintegration into the family and society; the treatment plan includes the occupational therapy.

The clinical experience has shown that most remissions, under the treatment with classical antipsychotics are of type "c" and "d" (185).

The road to atypical antipsychotics started in America, where, in '70s, was introduced in the treatment of mental patients Clozapine, another kind of so-called "atypical" neuroleptic. Reports of some unwanted side effects in the patients treated with the new drug went, based on an awareness about health with rigorous standards, to the exclusion of the drug from the market. The drug, already manufactured in large quantities, is offered free to clinics in Europe. More pragmatic, the European psychiatrists are making the positive and negative effects balance, that tilts clearly for positive effects. The attempt to eliminate or mitigate the adverse effects of Clozapine led to the discovery of other antipsychotics, called "like cloze". After 1990 the therapeutic arsenal is enriched with new types of antipsychotics (95).

Undoubtedly, schizophrenia is the most devastating brain disease. The classic antipsychotics brought a ray of light for the patients affected by this disease (considered by some authors as a "destiny"). But it was not enough. Even if some bothersome symptoms are reduced or remitted under treatment, many problems remain unsolved related to the functioning of the patient, to the preservation of the cognitive function, etc., and also experience other disadvantages (unwanted side effects) (21).

Under these auspices, we proposed to examine the impact of the new generation antipsychotic medications on the life quality of the patients taking a prospective study of 192 patients, for a period of 5 years. To avoid bias, we studied patients treated with 3 atypical antipsychotics: Olanzapine, Clozapine, Risperdal and a classic neuroleptic - Haloperidol.

The study aims also to highlight the usefulness and the degree of approximation of various psychometric scales used today. By definition, the life quality is a highly subjective feature. Or, in patients with schizophrenia self-assessment can lead to incorrect results. This does not mean that there are not devices for measuring closer to the truth. The information obtained from the patient's entourage, first from the family, are particularly important.

At the beginning of the study, the clinical experience in managing the next generation antipsychotic medication did not exceed a decade, but some results were spectacular.

That was the challenge. What prove the 5 years of study?

The basic idea of the paper was a comparative study that spanned a period of five years, on groups of patients selected according to certain criteria. The patients selected were divided into four compartment groups, evaluated after a series of scales, then monitoring their clinical course periodically in administering the antipsychotic drugs: atypical versus typical.

In the first part of the paper is offered a perspective on the current orientation in schizophrenia, attempting a more exact definition of this disease, a disease short history following the presentation of the classification trials of the schizophrenia clinical types.

The difficulty of developing some diagnostic criteria for mental disorders versus the other diseases come from the absence, in most cases, of the etiological factor - essential feature of the mental disorders.

Currently are supported two major classification systems of mental disorders:

- International Statistical Classification of Disease and Related Health Problems - International Statistical Classification of Diseases and Related Health Problems (ICD / CTM); this classification system is used in Europe.
- Diagnostic and Statistical Manual of Mental Disorders (DSM, Diagnostic and Statistical Manual of Mental Disorders).

Also, we follow considerations on the epidemiology and etiopathogenesis of schizophrenia.

The annual incidence is estimated between 0.1 and 0.5 per thousand inhabitants, and varies with age and sex - young men and women between 35 and 39 years showing higher rates of disease.

Regarding the etiopathogenia and approach of this chapter based on the acceptance that the etiology of schizophrenia is still a great enigma for all professionals, even if in this direction is consumed the largest amount of research and scientific inquiry. Complex and recognized team of specialists have been limited to issue some "assumptions" and "concepts" and have identified "factors" favoring the disease.

The vulnerability-stress model accredits the idea of a specific biological vulnerability that is triggered by stress and leads to schizophrenic symptoms. Stress can have a genetic, biological and psychosocial or environmental nature.

Chapter 1 ends with some therapeutic considerations vis a vis the patient's clinical management and includes:

- Antipsychotic hospitalization and medication;
- Psychosocial treatments;

Chapter 2 provides an overview on current affairs in antipsychotic medication. The atypical antipsychotics apparition is related to the studies and research on elucidating the pathophysiological and etiological mechanisms of triggering and evolution of schizophrenia.

In terms of therapeutic effectiveness in treating schizophrenia, things are not yet sufficiently distinct, especially regarding the theory of "multifactorial" etiopathogenesis that supports the involvement of several levels of vulnerability, in a relative channeling. However, the biological – biochemical model that this theory was based on allows the development of new therapeutic and management strategies in schizophrenia.

The main etiopathogenic hypotheses developed based on the biochemical vulnerability are:

- The dopaminergic hypothesis of schizophrenia;
- The serotonin hypothesis;

