

UNIT V: TREATMENT MODALITIES AND THERAPIES USED IN MENTAL DISORDERS

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PSYCHOPHARMACOLOGY

- Psychopharmacology is the study of drugs used to treat psychiatric disorders.
- Medications that affect psychic function, behavior or experience are called psychotropic medications.
- They have significant effect on higher mental functions.
- Psychopharmacological agents are first line treatment for almost all psychiatric ailments now a days.

CORE CONCEPT

- **Neurotransmitters:** are the chemical messengers that travel from one brain cell to another and they are synthesized by enzymes from certain dietary amino acids or precursors.
- **Receptors:** are molecules situated on the cell membrane that are binding sites for neurotransmitters.

DRUG EFFECTS



Release

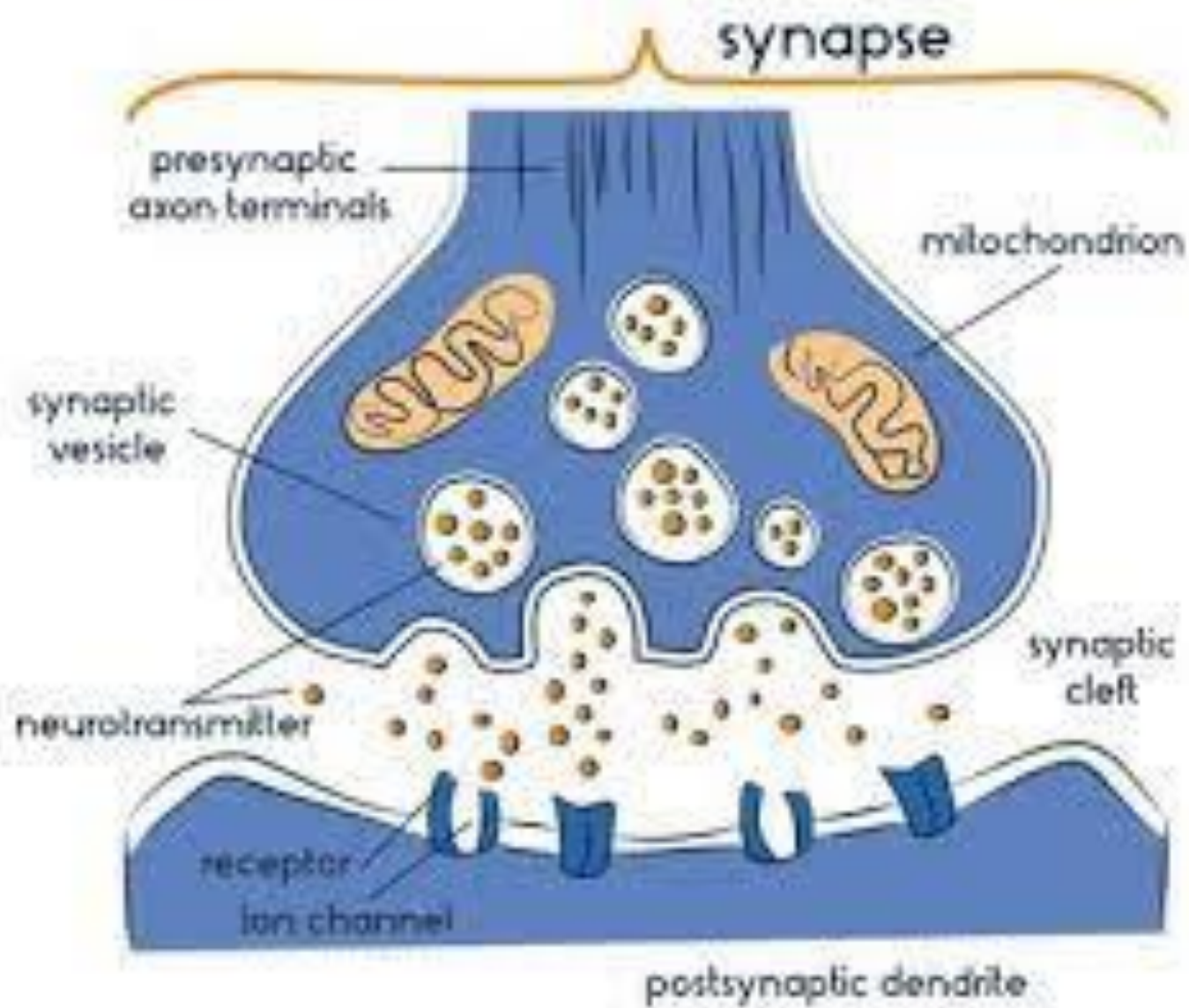
Blockade

**Receptor sensitivity
changes**

Blocked reuptake

**Interference with storage
vesicles**

**Precursor chain
interference**



GENERAL GUIDELINES REGARDING DRUG ADMINISTRATION IN PSYCHIATRY

- The nurse should not administer any drug unless there is a written order.
- Do not hesitate to consult the doctor when in doubt any medication.
- All medications given must be charted on the patient's case record sheet.
- In giving medication:
 - Always address the patient by name & make certain of his identification.
 - Do not leave the patient until the drug is swallowed.
 - Do not permit the patient to go to the bathroom to take medication.
 - Do not allow one patient to carry medicine to another.

Cont.....

- If it is necessary to leave the patient to get water, do not leave the tray within the reach of the patient.
- Do not force oral medication because of the danger of aspiration. This is especially important in stupor patients.
- Check drugs daily for any change in color, odor & number.
- Bottle should be tightly closed & labeled. Labels should be written legibly & in bold lettering. Poison drugs are to be legibly labeled & to be kept in separate cupboard.
- Make sure that an adequate supply of drugs is on hand, but do not overstock.
- Make sure no patient has access to the drug cupboard.
- Drug cupboard should always be kept locked when not in use. Never allow a patient or worker to clean the drug cupboard. The drug cupboard keys should not be given to patients.

SPECIFIC AREAS OF EDUCATION FOR THE PATIENT AND FAMILY

- Discussion of side effects
- Discussion of safety issues
- Drug interactions
- Instructions for older adult patients
- Instructions for pregnant or breastfeeding patients

CLASSIFICATION OF PSYCHOTROPIC DRUGS

Antipsychotics

Antidepressants

Mood stabilizing drugs

Anxiolytics and hypnotosedatives

Antiepileptic drugs

Antiparkinsonian drugs

Miscellaneous drugs

ANTIPSYCHOTICS

- Antipsychotic agents are also known as neuroleptic, major tranquilizers, or phenothiazines.
- This group of drugs has a major clinical use in the treatment of psychosis.
- Psychosis is a state in which a person's ability to recognize reality to communicate & to relate to others is severely impaired.

CLASSIFICATION

A. Typical antipsychotics

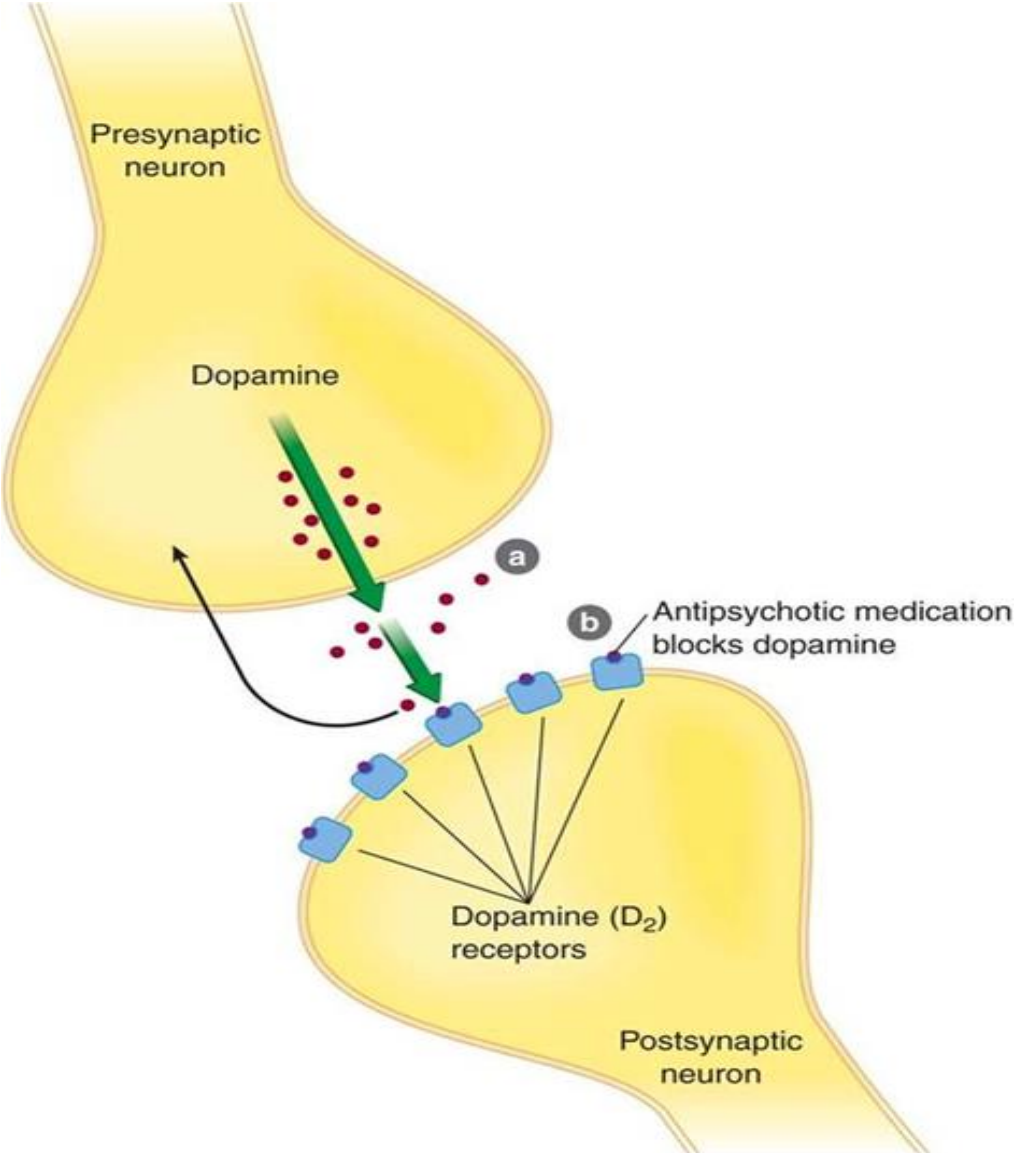
1. Phenothiazines (chlorpromazine)
2. Thioxanthenes (flupenthixol)
3. Butyrophenones (haloperidol)
4. Diphenylbutyl(pimozide)
5. Piperidines(penfluridol)
6. Indolic derivatives(molindone)
7. Dibenzoxazepines (loxapine)

B. Atypical antipsychotics

1. Clozapine
2. Risperidone
3. Olanzapine
4. Quetiapine
5. Ziprasidone

MECHANISM OF ACTION

- Dopamine is a chemical which is released in the brain & causes psychotic thinking.
- Increased production of dopamine transmits the nerve impulses to the brainstem faster than normal. This result in strange thoughts , hallucination & bizarre behavior.
- Antipsychotics helps in blocking or reducing the activity of dopamine.
- Antiemetic is another property of antipsychotic agents.
- They are also used in hiccoughs



INDICATIONS

❖ Depression

- Depressive episode • Dysthymia • Reactive depression • Secondary depression • Abnormal grief reaction

❖ Childhood psychiatric disorders

- Enuresis • Separation anxiety disorder • Somnambulism • School phobia • Night terrors

❖ Other psychiatric disorders

- Panic attack • Generalized anxiety disorder • Agrophobia, social phobia • OCD with or without depression • Eating disorder • Borderline personality disorder • Post-traumatic stress disorder • Depersonalization syndrome

❖ Medical disorder

- Chronic pain • Migraine • Peptic ulcer disease

SIDE EFFECTS

1) Autonomic side-effects

Dry mouth, constipation, cycloplegia, mydriasis, urinary retention, orthostatic hypotension, impotence, impaired ejaculation, delirium & aggravation of glaucoma.

2) CNS effects

Sedation, tremor & other extrapyramidal symptoms, withdrawal syndrome, seizures, jitteriness syndrome, precipitation of mania.

3) Cardiac side-effects

Tachycardia, ECG changes, arrhythmias, direct myocardial depression, quinidine-like action(decreased conduction time).

4) Allergic side-effects

Agranulocytosis, cholestatic jaundice, skin rashes, systemic vasculitis.

5) Metabolic & endocrine side-effects:- weight gain

6) Special effects of MAOI drugs

Hypertensive crises, severe hepatic necrosis, hyperpyrexia.

