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| Cannabis obtained from annual plant  Cannabis and its varieties that grows in Asia,  Africa ,and America (C.sativa; C.indica;C.americana | | Hallucinogens or psychodysleptics or psychoto-mimetics | | | | |
| Hashish | **Marijuana** | **Scopolamine** | **Phencyclidine (PCP**  **"Angel dust"** | **Mescaline** | **Psilocybin**  magic mushrooms | **. Lysergic acid diethylamide (LSD)** |
| is the resin removed from the plant | **dried crushed leaves and flowers**  **s** |  |  | **was used for religious ceremonies.**  **It is found in Mexican peyote cactus ;** | **found in Psilocybe fungi** | **semi-synthetic ergot derivative ; at present it is synthetic . LSD is very potent, being effective in dose of 1-2 microgram/kg** |
| The most important psychoactive substances present in it are the oily cannabinoids esp. delta 9 – THC (tetra- hydrocannabinol) .  Cannabinoid receptors are present in brain (CB1),  and also in periphery (CB2) | |  | **PCP acts in brain on to block NMDA glutamate**  **receptors; it can stimulate sigma (opioid ?) receptors; it also blocks dopamine re-uptake** | **CNS mechanism is complex, and includes agonist action at post-synaptic 5-HT1A and 5-HT1C receptors, and agonist action at presynaptic & postsynaptic 5-HT2 receptors.** | | |
| It is smoked, and psychoactive effects begin within few min, become maximal 20 min after last smoke , and last for about 2 h. Effects consist of  : euphoria and skeletal muscle relaxation ;  appetite is increased.  In larger dose, there is impaired perception of time , distance of objects, and their size; vivid visual sensations may occur with impaired memory,  attention, & judgement ;  some skills e.g. mental arithmetic and appreciation of dangers of some actions can be impaired.  High or repeated use may be followed by psychosis; this disappears quickly with stopping use    Peripheral effects are : tachycardia ; vasodilation causing red eyes; in high doses there is a decrease  in blood pressure | | **delirious hallucinogen that also causes marked amnesia** | **It produces a dissociated state of analgesia with detachment from environment (but not loss of consciousness), psychosis with agitation and hallucinations** | **It is taken orally as stamps; it produces a "trip" of euphoria, impaired memory , and thus impaired thinking and judgement, with perceptual symptoms of visual illusions and hallucinations, esp. of coloured objects. Time seems to pass fast. Waxing and waning of these mental symptoms is typical**  **These mental effects are associated with somatic effects such as parasthesia, weakness, as well as signs of sympathetic nervous system activation that includes tachycardia, dilated pupil, tremor , and elevated blood pressure** | | |
| Moderate psychological and physical dependence occur ; Tolerance occurs only with continued heavy use. | |  |  | **Tachyphylaxis (acute tolerance) occurs to LSD .**  **Continued use leads to psychological dependence**  **but not to physical dependence or chronic tolerance** | | |
| Clinical uses of cannabinoids include :  a. Dronabinol or nabilone : used as anti-emetic  in cancer chemotherapy  b. Potential uses for future include : glaucoma ,  stimulation of appetite , chronic pain, and  spasticity of skeletal muscles due to strokes  or multiple sclerosis | |  |  |  | | |
| Chronic toxicity among heavy habitual users include  impaired memory ,  psychosis in predisposed users ,  amotivational syndrome , as well as  chronic respiratory disorders such as chronic  bronchitis, airway obstruction, and cancer  which seem to be related to high tar content  of cannabis smoke | |  | **In acute overdose, convulsions, skeletal muscle rigidity, hypertension, and coma may occur ; it may be fatal.**  **It is treated by : diazepam to control agitation and convulsions ; haloperidol for psychosis; and enhancing elimination from body by gastric lavage and acid diuresis .** | **Acute overdose causes "Bad trip" that may lead**  **to panic or to fatal accidents ;**  **acute psychosis may occur in predisposed persons**    **Chronic toxicity in habitual users include psychosis**  **and flashback of previous hallucinations** | | |