

## **Serotonergic syndrome**

Caused by excess of serotonin in the central nervous system. Occurs soon after starting or changing the dose of certain drugs. Most cases are self-limiting. Can be serious if two or more serotonergic drugs are used.

Drugs that have been implicated include SSRIs (fluoxetine has the longest half life), MAOIs, TCAs, Lithium, Buspirone, St. John's wort, Tramadol, Selegiline, Pethidine and OD of amphetamines, cocaine, ecstasy, LSD. Differential diagnosis: NMS, dystonia, encephalitis and thyroid storm.

Diagnosis is made on clinical grounds. On investigations WBC count can be mildly increased and a rise in CPK may occur because of rhabdomyolysis. Complications include Rhabdomyolysis, DIC, adult respiratory distress syndrome, coma and death.

### **Sign and symptoms**

- Restlessness, confusion, agitation and lethargy.
- Hyperthermia, tachycardia, sweating, abdominal pain, nausea, vomiting, diarrhoea and dilated pupils.
- Myoclonus and hyperreflexia (symmetrical and commonly in lower limbs), hypertonia, tremor and ataxia.

### **Treatment and management**

- Stop the medicine
- Monitoring of vital signs
- Benzodiazepines for rigidity and seizures
- Rapid cooling
- Involve medics
- Transfer to ICU
- Serotonin antagonist: Cyproheptadine. Other drugs like propranolol and methysergide can also be used