Homicidality and Psychosis Associated with Over the Counter Performance Enhancing Supplements in a Past Anabolic Steroid User: A Case Report

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**Presentation**
- 30-years-old male
- Homicidal ideation
- Command hallucinations to kill a man
- “Vivid visions” of homicide
- Paranoid delusions
- Disorganized speech and behavior

**Past Psychiatric History**
- Polysubstance dependence full remission

**Past Medical & Family Histories**
- Non-contributory

**Physical Examination**
- Well-defined bodybuilder
- Hypertrophied musculature and acne
- Otherwise within normal limits

**Mental Status Examination**
- Alert and oriented
- Guarded
- Depressed
- Disorganized
- Auditory and visual hallucinations
- Paranoid delusions
- Preoccupied with sex and muscles

**Current Rx:** None

**Investigation: all within normal limits**
- Routine laboratory tests
- Urine Drug Screen
- CT scan of the head
- ECG
- Vital signs

**Symptoms**
- Psychosis and hallucinations
- Homicidality
- Aggression
- Acne
- Hypertrophied muscles
- Gynecomastia
- Breast cyst
- Gynecomastia

**Diagnoses**
- Substance Induced Psychotic Disorder
- Anabolic Steroid Use Disorder
- Stimulant, Opioid and Alcohol Use Disorders
  - in full and sustained remission

**Inpatient Treatment**
- Olanzapine cleared psychosis and paranoia, allowing collection of extended history:
  1. A recreational bodybuilder
  2. 7 “cycles” of anabolic steroids (AS) with human growth hormone for muscle growth
  3. Stopped due to cost, gynecomastia and a lump under the nipple
  4. Started over the counter (OTC) performance enhancing supplements (PES) Dendrobium orchid extract and L-Dopa
  5. Onset of homicidality, psychosis

**Discharge Plan**
- Follow-up with outpatient mental health provider
- Chemical dependency provider
- General medical provider
- Family support

**Discussion**
- Only 5 reported cases of homicidality on AS, none on PES
- In 2014 FDA found CrazeTM, (Dendrobium alkaloids mix) adulterated with N,α-diethyl-phenylethylamine, a methamphetamine analog

**Lessons Learned**
Clinician’s should be aware of:
- Underreported AS and PES use
- Use of supplements can be cyclical = “cycling” or in combination = “stacking”
- OTC PES are not evaluated by FDA for safety, hence may be adulterated
- May pose health risks and cause a variety of psychiatric presentations during use or withdrawal