Clinical Practice Guidelines: Medical/Acute dystonic reaction

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Purpose: To ensure consistent management of patients with Acute dystonic reaction.
Scope: Applies to all QAS clinical staff.
Author: Clinical Quality & Patient Safety Unit, QAS
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Acute dystonic reactions are an extrapyramidal side-effect due to an imbalance between dopaminergic deficiency and cholinergic excess neurotransmission in the basal ganglia. Presentations are caused by numerous medications (Table 1) and although relatively common and distressing, are rarely life-threatening.

<table>
<thead>
<tr>
<th>Class</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antipsychotics</td>
<td>haloperidol, droperidol, fluphenazine, clozapine, olanzapine, quetiapine, risperidone</td>
</tr>
<tr>
<td>Antiemetics*</td>
<td>metoclopramide, prochlorperazine</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>SSRIs (e.g. fluoxetine)</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>erythromycin</td>
</tr>
<tr>
<td>Anticonvulsants</td>
<td>carbamazepine</td>
</tr>
<tr>
<td>Antihistamines (H2)</td>
<td>ranitidine</td>
</tr>
<tr>
<td>Recreational</td>
<td>cocaine</td>
</tr>
</tbody>
</table>

* most common

Dystonia itself refers to involuntary, sustained, repetitive muscle contractions that may be painful. Dystonia is different to akathisia (patient feels the need to constantly move), which may also occur with these medications.

The onset of dystonia varies. It may occur shortly after administration of the drug but usually occurs hours to days later.

Clinical features

- Presentations of acute dystonia
  - oculogyric crisis – deviated eye gaze
    +/- eyelid spasm
  - laryngospasm – stridor, dysphonia, throat pain, dyspnoea – potentially life-threatening
  - torticollis
  - opisthotonus – arms flexed, legs extended, back arched
  - macroglossia – tongue feels enlarged (clinically not) and protrudes from mouth
  - buccolingual crisis – may have trismus, dysarthria, grimacing
  - tortipelvic crisis – involves hips, pelvis and abdominal wall muscles
  - spasticity of trunk or limbs

- Other features that may be present
  - anxiety
  - agitation
  - diaphoresis
  - tachycardia
  - tachypnoea

- The patient has normal mentation.
**Risk Assessment**

- Often an idiosyncratic reaction, but more common in young males, especially if prior history.
- Acute dystonia may mimic a number of other conditions (e.g. seizures, meningitis, hyperventilation).

**Additional information**

- If there is no improvement with benztropine, it is unlikely to be an acute dystonic reaction.\(^{[1-3]}\)

**Note:** Officers are only to perform procedures for which they have received specific training and authorisation by the QAS.