149 - Neuroleptic malignant syndrome

Neuroleptic malignant syndrome

150 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 1 Neuroleptic malignant syndrome NMS occurs as a rare but potentially serious or even fatal adverse effect of antipsychotics and other dopamine antagonists (Table 1.33).1,2 It is an acute disorder of thermoregulation and neuromotor control, characterised by muscular rigidity, hyperthermia, altered consciousness and autonomic dysfunction, although there is considerable heterogeneity in the clinical presentation.1,3–5 In many cases, the presentation is atypical, lacking key signs and symptoms such as hyperthermia and muscle rigidity.6–8 Asymptomatic rises in plasma creatine kinase (CK) seem to be fairly common and so CK cannot be used as a diagnostic marker of NMS.9 Table 1.33 Neuroleptic malignant syndrome. Signs and symptoms10–13 (presentation varies considerably)14 Fever, diaphoresis, muscle rigidity, confusion, fluctuating level of consciousness, labile or high BP, tachycardia Elevated CK, often >1000 units/L,2,15 leukocytosis, altered LFTs Risk factors12,13,16–21 High-potency FGAs, recent or rapid dose increase, rapid dose reduction, abrupt withdrawal of anticholinergic agents, antipsychotic polypharmacy Psychosis, organic brain disease, alcoholism, Parkinson’s disease, hyperthyroidism, psychomotor agitation, cognitive impairment Male gender, younger age Agitation, dehydration Treatments10,12,22–25 (note that guideline recommendations for NMS vary widely and are based on limited evidence)26 In the psychiatric unit: withdraw antipsychotic medication, monitor temperature, pulse, BP. Consider benzodiazepines if not already prescribed – IM lorazepam has been used.27 In the medical/emergency unit: rehydration, bromocriptine + dantrolene, sedation with benzodiazepines, artificial ventilation if required l-dopa, apomorphine and carbamazepine have also been used, among many other drugs. ECT may be effective for NMS, even after pharmacotherapy has failed.28–30 Restarting antipsychotics12,22,31,32 Antipsychotic treatment will be required in most instances and rechallenge is associated with acceptable risk Stop antipsychotic medication for at least 5 days, preferably longer. Allow time for symptoms and signs of NMS to resolve completely Begin with very small dose and increase very slowly with close monitoring of temperature, pulse and blood pressure. CK monitoring may be used but is controversial.13,33 Close monitoring of physical and biochemical parameters is effective in reducing progression to ‘full-blown’ NMS.34,35 Consider using an antipsychotic medication structurally unrelated to that previously associated with NMS or a drug with low dopamine affinity (quetiapine or clozapine). Aripiprazole may also be

considered36 but it has a long plasma half-life and has been linked to an increased risk of NMS.17 Avoid depot/LAI antipsychotic preparations (of any kind) and high-potency FGAs CK, creatine kinase; FGA, first-generation antipsychotic.

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