- 3. Krause T, et al. Dantrolene—a review of its pharmacology, therapeutic use and new developments. Anaesthesia 2004; **59:** 364–73.
- 4. Wedel DJ, et al. Clinical effects of intravenously administered dantrolene. Mayo Clin Proc 1995; 70: 241-6.

 5. Litman RS, Rosenberg H. Malignant hyperthermia: update on susceptibility testing. JAMA 2005; 293: 2918-24.
- 6. Rosenberg H, Gronert GA. Intractable cardiac arrest in children given succinylcholine. Anesthesiology 1992; 77: 1054

Neuroleptic malignant syndrome. Dantrolene has been used, usually alone or with bromocriptine, in the treatment of neuroleptic malignant syndrome (p.972), although some workers have not found it to be of use, ¹ and evidence from controlled trials is lacking. Doses reported for dantrolene have varied great-ly. For those patients unable to swallow and when rapid control of symptoms is required, doses of 1 mg/kg or more have been given initially by intravenous injection. Up to 600 mg has been given daily by mouth in divided doses.

- Rosebush PI, et al. The treatment of neuroleptic malignant syndrome: are dantrolene and bromocriptine useful adjuncts to supportive care? Br J Psychiatry 1991; 159: 709-12.
- Krause T, et al. Dantrolene—a review of its pharmacology, therapeutic use and new developments. Anaesthesia 2004; 59: 364–73.
- 3. Ward A, et al. Dantrolene: a review of its pharmacodynamic and pharmacokinetic properties and therapeutic use in malignant hyperthermia, the neuroleptic malignant syndrome and an update
- of its use in muscle spasticity. *Drugs* 1986; **32:** 130–68.

 4. Harpe C, Stoudemire A. Aetiology and treatment of neuroleptic malignant syndrome. *Med Toxicol* 1987; **2:** 166–76.

Tetanus. Dantrolene has effectively controlled muscle spasms in the treatment of tetanus (see p.1901). It has also been used as an adjunct to neuromuscular blockade; there are conflicting reports^{2,3} of its value in avoiding mechanical ventilation.

- 1. Tidyman M, et al. Adjunctive use of dantrolene in severe tetanus. Anesth Analg 1985; **64:** 538-40.

 2. Checketts MR, White RJ. Avoidance of intermittent positive
- pressure ventilation in tetanus with dantrolene therapy. *Anaesthesia* 1993; **48**: 969–71.
- 3. Possamai C, et al. Dantrolene infusion in severe tetanus. Anaesthesia 1997; 52: 610.

Preparations

BP 2008: Dantrolene Oral Suspension; **USP 31:** Dantrolene Sodium Capsules; Dantrolene Sodium for Injection.

Proprietary Preparations (details are given in Part 3) Austral.: Dantrium; Belg.: Dantrium; Braz.: Dantrolen; Canad.: Dantrium; Chile: Dantrium; Denm.: Dantrium; Fr.: Dantrium; Ger.: Dantrium; Chartium; Chartium; Chartium; Chartium; Chartium; Chartium; Chartium; Int.: Dantrium; Int.: Dantrium

Eperisone Hydrochloride (rINNM)

Épérisone, Chlorhydrate d'; Eperisoni Hydrochloridum; Hidrocloruro de eperisona. 4'-Ethyl-2-methyl-3-piperidinopropiophenone hydrochloride.

Эперизона Гидрохдорид

 $C_{17}H_{25}NO,HCI = 295.8.$ CAS — 64840-90-0 (eps 64840-90-0 (eperisone); 56839-43-1 (eperisone

Pharmacopoeias. In Jpn.

Eperisone is a centrally acting skeletal muscle relaxant that has been used in the symptomatic treatment of muscle spasm (p.1887) and spasticity (p.1887). It may also have a vasodilator action. Eperisone hydrochloride has been given by mouth in usual doses of 50 mg three times daily after food.

Effects on the skin. A non-pigmenting fixed drug eruption developed in a 42-year-old woman after taking oral diclofenac sodium and eperisone hydrochloride.1 There was no residual hyperpigmentation and the rash and accompanying itching and burning sensation resolved within 7 days after stopping both drugs. On rechallenge with eperisone, an erythematous plaque developed at the same site within a couple of hours. The lesion disappeared within 5 days with no sequelae.

Choonhakarn C. Non-pigmenting fixed drug eruption: a new case due to eperisone hydrochloride. Br J Dermatol 2001; 144: 1288–9.

Preparations

Proprietary Preparations (details are given in Part 3) Indon.: Epsonal; Forelax; Forres; Myonal; Myonep; Myori; Permyo; Rizonax; Zonal; Jpn: Myonal; Malaysia: Myonal; Philipp.: Myonal; Singapore: Myonal; Thai.: Myonal.

Idrocilamide (rINN)

Idrocilamida; Idrocilamidum; LCB-29. N-(2-Hydroxyethyl)cin-

Идроциламид $C_{11}H_{13}NO_2 = 191.2.$ CAS — 6961-46-2.

Adverse Effects

When given by mouth idrocilamide was reported to produce abdominal pain, nausea, and drowsiness. Excitement, euphoria and hallucinations, and depression may occur.

Uses and Administration

Idrocilamide is a centrally acting muscle relaxant. It is reported to have local muscle relaxant and anti-inflammatory effects and is now mainly used topically.

Preparations

Proprietary Preparations (details are given in Part 3) Belg.: Srilane; Fr.: Srilane; Hong Kong: Srilane†; Switz.: Talval.

Mephenesin (BAN, rINN)

Cresoxydiol; Glykresin; Mefenesiini; Mefenesina; Mefenesina; Méphénésine; Mephenesinum. 3-(o-Tolyloxy)propane-1,2-diol. Мефенезин

 $C_{10}H_{14}O_3 = 182.2.$ CAS - 59-47-2. ATC - M03BX06.ATC Vet — QM03BX06.

NOTE. The name tolynol has been applied to both mephenesin and p,α -dimethylbenzyl alcohol (p.2294).

Pharmacopoeias. In It.

Profile

Mephenesin is a centrally acting skeletal muscle relaxant used for the symptomatic treatment of painful muscle spasm (p.1887) associated with musculoskeletal conditions. Its clinical usefulness is considered to be limited by its brief duration of action. It is given orally in doses of 1.5 to 3 g daily in divided doses. It is also applied topically, usually with rubefacients.

Porphyria. Mephenesin is considered to be unsafe in patients with porphyria because it has been shown to be porphyrinogenic in in-vitro systems.

Preparations

Proprietary Preparations (details are given in Part 3) Fr.: Decontractyl; Ger.: DoloVisano M

Multi-ingredient: Belg.: Algipan; Fr.: Algipan; Decontractyl; Traumalgyl; India: Acks; Flamar; Inflazone; Medicreme; Relaxyl; Ital.: Relaxar; S.Afr.: Spasmend.

Mephenoxalone (rINN)

AHR-233; Mefenoksalon; Mefenoxalona; Méphénoxalone; Mephenoxalonum; Methoxadone; OM-518. 5-(2-Methoxyphenoxymethyl)oxazolidin-2-one.

Мефеноксалон $C_{11}H_{13}NO_4 = 223.2.$ CAS - 70-07-5. ATC - N05BX01.ATC Vet — QN05BX01

Mephenoxalone has actions similar to those of meprobamate (p.1006). It has been given orally in a dose of 200 to 400 mg three times daily as a muscle relaxant in the treatment of muscle spasm (p.1887). It has also been given for the treatment of anxi-

Proprietary Preparations (details are given in Part 3) Cz.: Dimexol; Dorsiflex, Neth.: Dorsiflex, Turk.: Dorsiflex. Multi-ingredient: Turk.: Dorsilon.

Metaxalone (BAN, USAN, rINN)

AHR-438; Metaxalona; Métaxalone; Metaxalonum. 5-(3,5-Xylyloxymethyl)oxazolidin-2-one.

Метаксалон $C_{12}H_{15}NO_3 = 221.3.$ CAS — 1665-48-1 - 1665-48-1.

Adverse Effects, Treatment, and Precautions

As for Chlorzoxazone, p.1895.

Metaxalone may cause drowsiness; patients affected should not drive or operate machinery.

Patients taking metaxalone excrete in the urine a metabolite which gives a false positive reaction to copper sulfate-based tests

Interactions

The CNS effects of metaxalone may be enhanced by alcohol and other CNS depressants.

Pharmacokinetics

Metaxalone is absorbed from the gastrointestinal tract, metabolised in the liver, and excreted in urine as metabolites. The plasma elimination half-life is about 2 to 3 hours.

Uses and Administration

Metaxalone is a centrally acting skeletal muscle relaxant. Its mode of action may be related to its sedative properties

It is used as an adjunct in the symptomatic treatment of painful muscle spasm (p.1887) associated with musculoskeletal conditions. The usual oral dose is 800 mg three or four times daily.

Preparations

Proprietary Preparations (details are given in Part 3) **USA**: Skelaxin.

Methocarbamol (BAN, rINN)

Guainhenesin Carbamate: Méthocarbamol: Methocarbamolum: Metocarbamol; Metokarbamol; Metokarbamoli. 2-Hydroxy-3-(2-methoxyphenoxy)propyl carbamate.

Метокарбамол $C_{11}H_{15}NO_5 = 241.2.$ CAS - 532-03-6. ATC - M03BA03.ATC Vet - QM03BA03.

$$H_3CO$$
 OH O NH_2

Pharmacopoeias. In US.

USP 31 (Methocarbamol). A white powder, odourless or having a slight characteristic odour. M.p. about 94° or, if previously ground to a fine powder, about 90°. Soluble 1 in 40 of water at 20°; sparingly soluble in chloroform; soluble in alcohol only with heating; insoluble in n-hexane and in benzene. Store in airtight containers

Adverse Effects

Adverse effects reported with methocarbamol include nausea, vomiting, anorexia, lightheadedness, dizziness, lassitude, drowsiness, restlessness, anxiety, confusion, tremor, vertigo, blurred vision, fever, headache, convulsions, and hypersensitivity reactions including rashes, pruritus, urticaria, angioedema, and conjunctivitis with nasal congestion.

After injection patients may experience flushing and a metallic taste; incoordination, diplopia, nystagmus, vertigo, syncope, hypotension, bradycardia, and anaphylaxis have been reported. There may be sloughing and thrombophlebitis at the site of injection.

Precautions

Methocarbamol is contra-indicated in coma or pre-coma states, brain damage, myasthenia gravis, or in patients with a history of epilepsy. Caution is advisable in renal or hepatic impairment.