toxicity from calcipotriol and that measurement of urine calcium excretion is a more sensitive indicator of toxicity than serum-calcium concentrations.

1. Committee on Safety of Medicines/Medicines Control Agency. Dovonex ointment (calcipotriol). *Current Problems* 1994; **20:** 3. Also available at: http://www.mhra.gov.uk/home/idcplg?IdcService=GET_FILE&dDocName=CON2024457&RevisionSelectionMethod=LatestReleased (accessed 27/09/07)
2. Berth-Jones J, *et al.* Urine calcium excretion during treatment of psoriasis with topical calcipotriol. *Br J Dermatol* 1993; **129:** 411–14.
3. Bourke JF, *et al.* Vitamin D analogues in psoriasis: effects on systemic calcium homeostasis. *Br J Dermatol* 1996; **135:** 347–54.

Hyperpigmentation. Hyperpigmentation occurred at the site of calcipotriol application in 2 patients after use with PUVA-bath therapy (a topical psoralen with UVA irradiation) for psoriasis.[1] The effect persisted for at least 4 months in these patients. Hyperpigmentation of psoriatic plaques was also reported in a patient treated with topical calcipotriol and UVB phototherapy.[2] Abnormal lentiginous pigmentation of psoriatic plaques occurred in a patient treated with topical calcipotriol for psoriasis, which had worsened during chemotherapy for melanoma, and was still present 2 years after stopping chemotherapy and calcipotriol.[3] The authors also noted that melanoma can cause pigment changes and may have played a role in this case.

There has been some interest in the hyperpigmentary effects of calcipotriol for the possible treatment of vitiligo (see Skin Disorders, below).

1. Gläser R, *et al.* Hyperpigmentation due to topical calcipotriol and photochemotherapy in two psoriatic patients. *Br J Dermatol* 1998; **139:** 148–51.
2. Rütter A, Schwarz T. Ausgeprägte Hyperpigmentierung in psoriatischen Plaques als Folge einer Kombinationsbehandlung mit UVB-311 nm und Calcipotriol. *Hautarzt* 2000; **51:** 431–3.
3. Oláh J, *et al.* Pigment anomaly caused by calcipotriol in a subject with melanoma. *J Eur Acad Dermatol Venereol* 2004; **18:** 113–15.

Uses and Administration

Calcipotriol is a vitamin D_3 derivative. *In vitro* it appears to induce differentiation and to suppress proliferation of keratinocytes.

Calcipotriol is used in a cream or ointment for the management of plaque psoriasis and as a solution in the management of scalp psoriasis; the concentration of calcipotriol used is 0.005%. Applications should be made once or twice daily. No more than 100 g of cream or ointment, or 60 mL of scalp solution, should be applied in one week. If both are used, the limit is 60 g of cream or ointment with 30 mL of scalp solution, or 30 g of cream or ointment with 60 mL of scalp solution.

For the use of calcipotriol in children, see below.

Administration in children. Topical calcipotriol may be used in the management of plaque psoriasis in children. In the UK, the cream or ointment (0.005%) may be applied twice daily. The maximum applied in one week should be 50 g in children aged 6 to 12 years, and 75 g in children more than 12 years of age. The *BNFC* also suggests that under specialist supervision the scalp solution (0.005%) may be applied twice daily to children aged 6 years and over for the treatment of scalp psoriasis; no more than 30 mL of the solution should be applied in one week to those aged 6 to 12 years, with older children receiving a maximum of 45 mL in one week. When preparations are used together, the *BNFC* recommends a maximum total calcipotriol dose of 2.5 mg in any one week for children aged 6 to 12 years (e.g. 20 mL of the scalp solution with 30 g of the cream or ointment); in older children, the maximum is 3.75 mg in any one week (e.g. 30 mL of the scalp solution with 45 g of the cream or ointment). In the UK, the scalp solution is not licensed for use in children and the cream and ointment are not licensed for use in children under 6 years; however, safety and efficacy have been reported in small 8-week studies that have included children as young as 2 years old.[1-3] There are also a few case reports of topical calcipotriol use in infants with psoriasis, aged 3 months[4] and 6 months.[5]

1. Darley CR, *et al.* Safety and efficacy of calcipotriol ointment (Dovonex) in treating children with psoriasis vulgaris. *Br J Dermatol* 1996; **135:** 390–3.
2. Oranje AP, *et al.* Topical calcipotriol in childhood psoriasis. *J Am Acad Dermatol* 1997; **36:** 203–8.
3. Patrizi A, *et al.* Topical calcipotriol in childhood psoriasis. *Acta Derm Venereol* 1999; **79:** 477.
4. Travis LB, Silverberg NB. Psoriasis in infancy: therapy with calcipotriene ointment. *Cutis* 2001; **68:** 341–4.
5. Choi YJ, *et al.* Infantile psoriasis: successful treatment with topical calcipotriol. *Pediatr Dermatol* 2000; **17:** 242–4.

Skin disorders. Topical drugs are the treatment of first choice for *chronic plaque psoriasis* (p.1583). Calcipotriol, dithranol, and coal tar are commonly used for mild to moderate forms of the disorder. Calcipotriol inhibits cell proliferation and increases cell differentiation by binding to vitamin D receptors, thus inhibiting epidermal growth and returning some normality to the skin's structure. It is also possible that calcipotriol affects immunological and inflammatory processes in the skin.[1] Topical calcipotriol has been shown to be effective in mild to moderate chronic plaque psoriasis; it is at least as effective as dithranol, coal tar, and corticosteroids, and has been reported to be superior in a number of studies.[1,2] Calcipotriol is also more cosmetically acceptable than dithranol, which can stain, and coal tar, which can have an unpleasant smell. Benefits have been maintained with long-term use, and repeat courses are effective for the management of relapse. Although there are fewer studies in children, calcipotriol has been reported to be safe and effective in studies including children aged 2 to 15 years[1] (see also Administration in Children, above). Calcipotriol, applied as a topical solution, is also effective for *scalp psoriasis*.[3] When solutions of calcipotriol and betamethasone were compared for mild to moderate scalp psoriasis,[4] calcipotriol produced a satisfactory response, but betamethasone was more effective and was associated with less irritation of the scalp and face. Similar results were reported in a study comparing calcipotriol with clobetasol propionate in moderate to severe scalp psoriasis.[5] In a study of patients with *nail psoriasis* about half received benefit from calcipotriol ointment over a 3 to 5 month treatment period.[6] This result was similar to that found for patients treated with betamethasone and salicylic acid ointment.

Use of calcipotriol with other antipsoriatic drugs may be beneficial. The combination of calcipotriol with a topical corticosteroid is more effective than monotherapy with either of these.[1,7,8] Treatment for up to 4 weeks is usually effective and may be followed by maintenance calcipotriol monotherapy.[9] Topical calcipotriol with systemic therapies has also been tried. There is evidence that the response to oral ciclosporin or acitretin can be improved,[1] as can the response to phototherapy (UVB) or photochemotherapy (PUVA).[1,10] Combination therapy may also reduce the cumulative dose of acitretin, UVB, or PUVA required to achieve clearance or marked improvement of psoriasis, potentially reducing the risk of long-term adverse effects from these treatments.[1,10,11] However, because of the potential for the vehicle of topical calcipotriol preparations to block UV irradiation, they should be applied at least 2 hours before irradiation.[12] Despite promising reports from combination therapy using topical calcipotriol with systemic treatment, phototherapy, or photochemotherapy, a systematic review[13] found that although there can be a measurable additive effect, it may not be clinically significant in patients' own assessments.

A 2-week course of high-dose calcipotriol (up to 360 g of 0.005% ointment weekly) has been used for inpatient treatment of extensive psoriasis, followed by the usual recommended dose (up to 100 g weekly) for residual psoriasis.[14] Asymptomatic hypercalcaemia and hypercalciuria occurred in some patients, and the authors suggested that the monitoring of calcium homoeostasis is mandatory with this regimen (see also Effects on Calcium Homoeostasis, above). Relapse occurred in most patients within one year.

Beneficial results with calcipotriol have also been reported in small numbers of patients with various skin disorders[15] including *acrodermatitis continua of Hallopeau*, *confluent and reticulated papillomatosis*, *congenital ichthyosis*, *inflammatory linear verrucous epidermal nevus*, *lichen amyloidosis*, *morphea or linear scleroderma*, *pityriasis rubra pilaris*, *prurigo nodularis*, and *seborrhoeic dermatitis*. A small open study[16] has indicated that topical calcipotriol may be effective in the treatment of oral *leucoplakia* (see under Bleomycin, p.688). It has also been tried, alone or with UVA or UVB, or a topical corticosteroid, in the treatment of *vitiligo*[17-21] (see Pigmentation Disorders, p.1582), but results have been mixed.

1. Scott LJ, *et al.* Calcipotriol ointment: a review of its use in the management of psoriasis. *Am J Clin Dermatol* 2001; **2:** 95–120.
2. Ashcroft DM, *et al.* Systematic review of comparative efficacy and tolerability of calcipotriol in treating chronic plaque psoriasis. *BMJ* 2000; **320:** 963–7.
3. Thaçi D, *et al.* Calcipotriol solution for the treatment of scalp psoriasis: evaluation of efficacy, safety and acceptance in 3,396 patients. *Dermatology* 2001; **203:** 153–6.
4. Klaber MR, *et al.* Comparative effects of calcipotriol solution (50 micrograms/mL) and betamethasone 17-valerate solution (1 mg/mL) in the treatment of scalp psoriasis. *Br J Dermatol* 1994; **131:** 678–83.
5. Reygagne P, *et al.* Clobetasol propionate shampoo 0.05% and calcipotriol solution 0.005%: a randomized comparison of efficacy and safety in subjects with scalp psoriasis. *J Dermatol Treat* 2005; **16:** 31–6.
6. Tosti A, *et al.* Calcipotriol ointment in nail psoriasis: a controlled double-blind comparison with betamethasone dipropionate and salicylic acid. *Br J Dermatol* 1998; **139:** 655–9.
7. Fenton C, Plosker GL. Calcipotriol/betamethasone dipropionate: a review of its use in the treatment of psoriasis vulgaris. *Am J Clin Dermatol* 2004; **5:** 463–78.
8. Kragballe K, van de Kerkhof PCM. Consistency of data in six phase III clinical studies of a two-compound product containing calcipotriol and betamethasone dipropionate ointment for the treatment of psoriasis. *J Eur Acad Dermatol Venereol* 2006; **20:** 39–44.
9. White S, *et al.* Use of calcipotriene cream (Dovonex cream) following acute treatment of psoriasis vulgaris with the calcipotriene/betamethasone dipropionate two-compound product (Taclonex): a randomized, parallel-group clinical trial. *Am J Clin Dermatol* 2006; **7:** 177–84.
10. Torras H, *et al.* A combination therapy of calcipotriol cream and PUVA reduces the UVA dose and improves the response of psoriasis vulgaris. *J Dermatol Treat* 2004; **15:** 98–103.
11. Woo WK, McKenna KE. Combination TL01 ultraviolet B phototherapy and topical calcipotriol for psoriasis: a prospective randomized placebo-controlled clinical trial. *Br J Dermatol* 2003; **149:** 146–50.
12. De Rie MA, *et al.* Calcipotriol ointment and cream or their vehicles applied immediately before irradiation inhibit ultraviolet B-induced erythema. *Br J Dermatol* 2000; **142:** 1160–5.
13. Ashcroft DM, *et al.* Combination regimens of topical calcipotriene in chronic plaque psoriasis: systematic review of efficacy and tolerability. *Arch Dermatol* 2000; **136:** 1536–43.
14. Bleiker TO, *et al.* Long-term outcome of severe chronic plaque psoriasis following treatment with high-dose topical calcipotriol. *Br J Dermatol* 1998; **139:** 285–6.
15. Holm EA, Jemec GBE. The therapeutic potential of calcipotriol in diseases other than psoriasis. *Int J Dermatol* 2002; **41:** 38–43.
16. Femiano F, *et al.* Oral leukoplakia: open trial of topical therapy with calcipotriol compared with tretinoin. *Int J Oral Maxillofac Surg* 2001; **30:** 402–6.
17. Ameen M, *et al.* Topical calcipotriol as monotherapy and in combination with psoralen plus ultraviolet A in the treatment of vitiligo. *Br J Dermatol* 2001; **145:** 476–9.
18. Chiaverini C, *et al.* Treatment of vitiligo by topical calcipotriol. *J Eur Acad Dermatol Venereol* 2002; **16:** 137–8.
19. Kumaran MS, *et al.* Effect of topical calcipotriol, betamethasone dipropionate and their combination in the treatment of localized vitiligo. *J Eur Acad Dermatol Venereol* 2006; **20:** 269–73.
20. Goktas E, *et al.* Combination of narrow band UVB and topical calcipotriol for the treatment of vitiligo. *J Eur Acad Dermatol Venereol* 2006; **20:** 553–7.
21. Arca E, *et al.* Narrow-band ultraviolet B as monotherapy and in combination with topical calcipotriol in the treatment of vitiligo. *J Dermatol* 2006; **33:** 338–43.

Preparations

Proprietary Preparations (details are given in Part 3)
Arg.: Daivonex; Dermocal†; ***Austral.:*** Daivonex; ***Austria:*** Psorcutan; ***Belg.:*** Daivonex; ***Braz.:*** Daivonex; ***Canad.:*** Dovonex; ***Chile:*** Daivonex; ***Cz.:*** Daivonex; Psorcutan†; ***Denm.:*** Daivonex; ***Fin.:*** Daivonex; ***Fr.:*** Daivonex; ***Ger.:*** Daivonex; Psorcutan; ***Gr.:*** Cipocal; Dovonex; F-Psorin; Psoraffect; ***Hong Kong:*** Daivonex; ***Hung.:*** Daivonex; ***India:*** Daivonex; ***Indon.:*** Daivonex; ***Irl.:*** Dovonex; ***Israel:*** Daivonex; ***Ital.:*** Daivonex; Psorcutan; ***Jpn:*** Dovonex; ***Malaysia:*** Daivobet; Daivonex; ***Mex.:*** Daivonex; Eukadar; ***Neth.:*** Daivonex; ***Norw.:*** Daivonex; ***NZ:*** Daivonex; ***Philipp.:*** Daivonex; ***Pol.:*** Daivonex; ***Port.:*** Daivonex; ***Rus.:*** Daivonex (Дайвонекс); ***S.Afr.:*** Dovonex; ***Singapore:*** Daivonex; ***Spain:*** Daivonex; ***Swed.:*** Daivonex; ***Switz.:*** Daivonex; ***Thai.:*** Daivonex; ***Turk.:*** Psorcutan; ***UK:*** Dovonex; ***USA:*** Dovonex; ***Venez.:*** Daivonex†.

Multi-ingredient: ***Austral.:*** Daivobet; ***Austria:*** Psorcutan Beta; ***Belg.:*** Dovobet; ***Braz.:*** Daivobet; ***Canad.:*** Dovobet; ***Cz.:*** Daivobet; ***Denm.:*** Daivobet; ***Fin.:*** Daivobet; ***Fr.:*** Daivobet; ***Ger.:*** Daivobet; Psorcutan Beta; ***Gr.:*** Dovobet; ***Hong Kong:*** Daivobet; ***Hung.:*** Daivobet; ***Indon.:*** Daivobet; ***Irl.:*** Dovobet; ***Israel:*** Daivobet; ***Ital.:*** Dovobet; Token; ***Mex.:*** Daivobet; ***Neth.:*** Dovobet; ***Norw.:*** Daivobet; ***NZ:*** Daivobet; ***Philipp.:*** Daivobet; ***Pol.:*** Daivobet; ***Port.:*** Daivobet; ***Rus.:*** Daivobet (Дайвобет); ***Singapore:*** Daivobet; ***Spain:*** Daivobet; ***Swed.:*** Daivobet; ***Switz.:*** Daivobet; ***Thai.:*** Daivobet; ***UK:*** Dovobet; ***USA:*** Taclonex.

Centella

Azijinės centelės žolė; Ázsiai gázlófű; Centellae asiaticae herba; Herba Centellae; Hidrocótilo; Hydrocotyle; Indian Pennywort; Nat' centely asijské; Rohtosammakonputki; Sallatsspikblad.

Центелла Азиатская (*Centella asiatica*)

CAS — 18449-41-7 (madecassic acid); 464-92-6 (asiatic acid); 16830-15-2 (asiaticoside).

Pharmacopoeias. In *Chin.* and *Eur.* (see p.vii).

Ph. Eur. 6.2 (Centella). The dried, fragmented aerial parts of *Centella asiatica*. It contains not less than 6% of total triterpenoid derivatives, expressed as asiaticoside, calculated with reference to dried drug. Protect from light.

Profile

Centella contains madecassic acid, asiatic acid, and asiaticoside. It has been used topically and orally in the management of wounds, ulcers, and keloid scars.

The names gotu kola, gotu cola, and gota kola are used for *Centella asiatica* (=*Hydrocotyle asiatica*) in herbal medicine. Centella is also used in homoeopathic medicine.

Adverse effects. Contact dermatitis has been reported with the topical use of centella.[1] There is also a report of 3 cases of hepatotoxicity associated with ingestion of centella, all presenting with jaundice, painful hepatomegaly, and granulomatous hepatitis with areas of necrosis.[2]

1. Gonzalo Garijo MA, *et al.* Allergic contact dermatitis due to Centella asiatica: a new case. *Allergol Immunopathol (Madr)* 1996; **24:** 132–4.
2. Jorge OA, Jorge AD. Hepatotoxicity associated with the ingestion of Centella asiatica. *Rev Esp Enferm Dig* 2005; **97:** 115–24.

Preparations

Proprietary Preparations (details are given in Part 3)
Arg.: Gotu Kola†; Pertusan†; Remiderm†; ***Austria:*** Madecassol; ***Belg.:*** Madecassol; ***Braz.:*** Centelax; Centella-Vit; ***Chile:*** Celulase; Celulase Plus; Centabel; Escar T; Madecassol; ***Fr.:*** Madecassol; ***Gr.:*** Madecassol; ***Hong Kong:*** Madecassol; ***Indon.:*** Fitocassol; Lanakeloid; Madecassol; ***Ital.:*** Centellase; ***Malaysia:*** Lanakeloid; ***Mex.:*** Madecassol; ***Port.:*** Madecassol; ***Singapore:*** Centellase; Centica; ***Spain:*** Blastoestimulina; ***Thai.:*** Madecassol†; ***Turk.:*** Madecassol; ***Venez.:*** Litonate; Madecassol; Triffadiane†.

Multi-ingredient: ***Arg.:*** Celu-Atlas; Centella Asiatica Compuesta; Centella Asiatica Diates; Centella Asiatica Vital; Centella Incaico; Centella Queen Complex; Centella Queen Reductora; Centellacrom; Centellase de Centella Queen; Centellase Gel; Clevosan; Enlinea†; Estri-Atlas; Garcinol Max; Ginal Cent; Ginkan; Herbaccion Celfin; Lidersoft†; Linfol Cicatrizante; Lociherp Liposomas Antiage; Lociherp Liposomas Vitaminado; Mailen; Moragen; Nio Marine; No-Gras; Ovumix; Pentol; Redudiet; Septigyn; Vagicural Plus; Venoful; VNS 45; ***Austral.:*** Extralife Leg-Care; ***Braz.:*** Composto Anticelulitico†; Composto Emagrecedor†; Derm'attive 10†; Emagrevit†;

Chile: Celulase Con Neomicina; Cicapost; Dermaglos Plus†; Escar T-Neomicina; Madecassol Neomicina†; Ureadin Rx DB; ***Fr.:*** Calmiphase†; Cicatridine; Fadiamone; Madecassol Neomycine Hydrocortisone†; ***Indon.:*** Lanakeloid-E; Venos; ***Ital.:*** Angiorex Complex; Angioton; Angiovein; Capill; Capill Venogel; Centella Complex; Centeril H; Dermilia Flebozin; Emmenoiasi; Flebo-Si; Flebofort; Flebolider; Gelovis; Levital Plus; Neomyrt Plus; Osmogel; Pik Gel; Varicofit; Venactive; ***Malaysia:*** Total Man†; ***Mex.:*** Madecassol C; Madecassol N; ***Philipp.:*** Memori Plus; Memory DD; Ruflex; ***Port.:*** Antiestrias; ***Spain:*** Blastoestimulina; Cemalyt; Nesfare; ***Venez.:*** Celyth's.

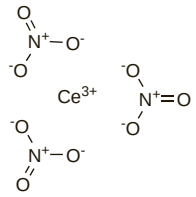
Cerous Nitrate

Cerio, nitrato de; Cerium Nitrate; Ceru(III) azotan.

Церия Нитрат

$Ce(NO_3)_3$ = 326.1.

CAS — 10108-73-3.



Profile

Cerous nitrate has been used topically, mainly with sulfadiazine silver, in the treatment of burns.

◊ References.

1. Garner JP, Heppell PS. Cerium nitrate in the management of burns. *Burns* 2005; **31:** 539–47.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Arg.:*** Sulfatral-Cerio†; ***Belg.:*** Flammacerium; ***Braz.:*** Dermacerium; ***Cz.:*** Flammacerium†; ***Fr.:*** Flammacerium; ***Gr.:*** Flammacerium; ***Neth.:*** Flammacerium; ***Philipp.:*** Flammacerium; ***Pol.:*** Flammacerium; ***UK:*** Flammacerium.

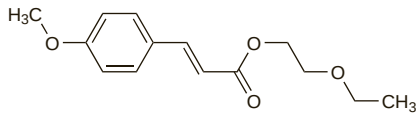
Cinoxate *(USAN, rINN)*

Cinoxato; Cinoxatum. 2-Ethoxyethyl *p*-methoxycinnamate; 3-(4-Methoxyphenyl)-2-propenoic acid 2-ethoxyethyl ester.

Циноксат

$C_{14}H_{18}O_4$ = 250.3.

CAS — 104-28-9.



Profile

Cinoxate, a substituted cinnamate, is a sunscreen (p.1576) with actions similar to those of octinoxate (p.1608). It is effective against UVB light (for definitions, see p.1580).

Preparations

Proprietary Preparations some preparations are listed in Part 3.

Crilanomer *(rINN)*

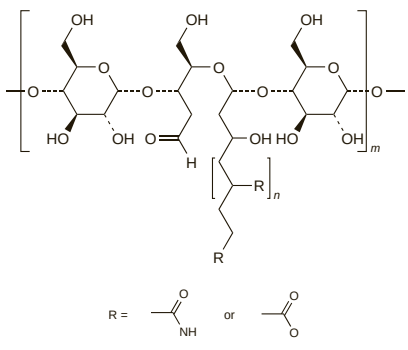
Acrylonitrile-starch Copolymer; Crilanomère; Crilanómero; Crilanomerum; ZK-94006. A starch polymer with acrylonitrile.

Криланомер

CAS — 37291-07-9.

ATC — D03AX09.

ATC Vet — QD03AX09.



Profile

Crilanomer is a starch copolymer used as a hydrogel wound dressing in the management of wounds.

Preparations

Proprietary Preparations (details are given in Part 3)

Austral.: Intrasite; ***S.Afr.:*** Intrasite.

Crotamiton *(BAN, rINN)*

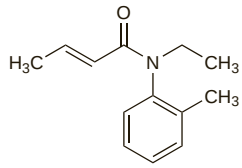
Crotam; Crotamitón; Crotamitonum; Krotamiton; Krotamitonas; Krotamitoni. *N*-Ethyl-*N*-*o*-tolylcrotonamide; *N*-Ethylcrotono-*o*-toluidide; *N*-Ethyl-*N*-(2-methylphenyl)-2-butenamide.

Кротамитон

$C_{13}H_{17}NO$ = 203.3.

CAS — 483-63-6.

ATC Vet — QP53AX04.



Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), and *US*.

Ph. Eur. 6.2 (Crotamiton). A colourless or pale yellow oily liquid. It solidifies partly or completely at low temperatures. It is mainly the (*E*)-isomer, with not more than 15% of the (*Z*)-isomer. Slightly soluble in water; miscible with alcohol. Protect from light.

USP 31 (Crotamiton). A colourless to slightly yellowish oil with a faint amine-like odour. It is a mixture of *cis*- and *trans*-isomers. Soluble in alcohol and in methyl alcohol. Store in airtight containers. Protect from light.

Adverse Effects and Precautions

Topical use of crotamiton occasionally causes irritation. There have been rare reports of hypersensitivity reactions. Crotamiton should not be used in patients with acute exudative dermatitis. It should not be applied near the eyes, mouth, or other mucous membranes or on excoriated skin.

Ingestion of crotamiton may cause burning and irritation of oral, oesophageal, and gastric mucosa with nausea, vomiting, and abdominal pain.

Overdosage. A 23-year-old woman developed tonic-clonic seizures, requiring treatment with diazepam, after ingestion of a crotamiton emulsion.[1] Other hospital treatment included gastric lavage, activated charcoal, and metoclopramide. Crotamiton was detected in serum at a concentration of 34 micrograms/mL and was also detectable with several metabolites in the urine. Reference was also made to a report of a 2½-month-old child who had developed pallor and cyanosis after excessive dermal application of a crotamiton cream.

1. Meredith TJ, *et al.* Crotamiton overdose. *Hum Exp Toxicol* 1990; **9:** 57.

Uses and Administration

Crotamiton is used as an antipruritic (p.1582), although its value is considered uncertain (see also below). It is applied as a 10% cream or lotion 2 or 3 times daily; children aged less than 3 years may receive one application daily.

Crotamiton has also been used as an acaricide in the treatment of scabies but other more effective drugs are usually preferred (p.2035). The 10% cream or lotion is applied, after first bathing and drying, to the whole of the body-surface below the chin, particular attention being paid to body folds and creases. A second application should be applied 24 hours later but it may need to be used once daily up to a total of 5 days to be effective.

Pruritus. A double-blind study in 31 patients[1] found that 10% crotamiton lotion was no more effective an antipruritic than its vehicle.

1. Smith EB, *et al.* Crotamiton lotion in pruritus. *Int J Dermatol* 1984; **23:** 684–5.

Preparations

BP 2008: Crotamiton Cream; Crotamiton Lotion;
USP 31: Crotamiton Cream.

Proprietary Preparations (details are given in Part 3)

Austral.: Eurax; ***Austria:*** Eurax; ***Belg.:*** Eurax; ***Canad.:*** Eurax; ***Chile:*** Eurax; ***Fr.:*** Eurax; ***Ger.:*** Crotamitex; Eraxil; ***Hong Kong:*** Eurax; Eurosin; Marax; ***India:*** Crotorax; ***Irl.:*** Eurax; ***Israel:*** Eurax; Scabicin; ***Ital.:*** Eurax; ***Malaysia:*** Crotorax; Eurax; Moz-Bite; ***Mex.:*** Eurax; ***Norw.:*** Eurax; ***NZ:*** Eurax; ***Philipp.:*** Congen; Eurax; Scabirax; ***Port.:*** Eurax; Scabicin; ***S.Afr.:*** Eurax; ***Singapore:*** Eurax; Moz-Bite; ***Spain:*** Euraxil; ***Switz.:*** Eurax; ***UK:*** Eurax; ***USA:*** Eurax; ***Venez.:*** Crotanol.

Multi-ingredient: ***Arg.:*** Anastim con RTH; Empecid Pie; ***Fr.:*** Acarcid†; Kelual DS; Triazol†; ***India:*** Crotorax-HC; ***Irl.:*** Eurax-Hydrocortisone; ***Israel:*** Duo-Scabil; ***Jpn:*** Una A Gel; ***Malaysia:*** Crotamiton H; ***UK:*** Eurax-Hydrocortisone; ***Venez.:*** Kertyol.

Dextranomer *(BAN, rINN)*

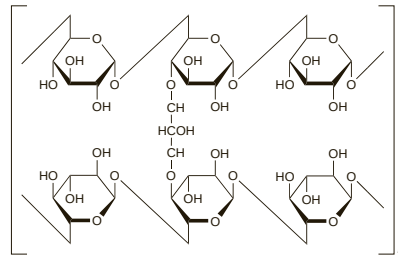
Dekstranomeeri; Dextranomère; Dextranómero; Dextranomerum. Dextran cross-linked with epichlorohydrin (1-chloro-2,3-epoxypropane); Dextran 2,3-dihydroxypropyl 2-hydroxy-1,3-propanediyl ether.

Декстраномер

CAS — 56087-11-7.

ATC — D03AX02.

ATC Vet — QD03AX02.



Pharmacopoeias. In *Eur.* (see p.vii).

Ph. Eur. 6.2 (Dextranomer). White or almost white, spherical beads. Practically insoluble in water. It swells in water and electrolyte solutions

Adverse Effects and Precautions

Dextranomer can cause pain during dressing changes in some patients, and bleeding, blistering, and erythema have been reported occasionally. It should not be used in deep wounds or cavities from which it cannot be easily removed, nor should it be used on dry wounds. Care should be exercised when paste formulations of dextranomer are used near the eyes.

Spillage may render surfaces very slippery.

Viscous gel implants containing dextranomer, injected submucosally around the urethra, can cause transient urinary retention. Injection site reactions including mass, abscess, and pseudocyst formation have been reported.

Uses and Administration

The action of dextranomer as a wound dressing depends upon its ability to absorb up to 4 times its weight of fluid, including dissolved and suspended material of molecular weight up to about 5000.

Dextranomer is used for the cleansing of exudative and infected burns (p.1578), wounds and ulcers (p.1585), and for preparation for skin grafting.

The wound is cleansed with sterile water or saline and allowed to remain wet; dextranomer in the form of spherical beads is sprinkled on to a depth of at least 3 to 6 mm and covered with a sterile dressing. Occlusive dressings are not recommended as they may lead to maceration around the wound. The dextranomer can be renewed up to 5 times daily (usually once or twice daily) when the layer has become saturated with exudate; the old layer is washed off with a stream of sterile water or saline before renewal. All dextranomer must be removed before skin grafting. Dextranomer may also be applied as a paste (either ready-made or prepared by mixing dextranomer beads with glycerol).

Implants containing dextranomer microspheres in a stabilised hyaluronic acid carrier gel (NASHA/Dx) are available for injection. In female stress urinary incontinence (p.2180), 4 injections each containing 35 mg of dextranomer are injected into the submucosa of the urethra. Connective tissue gradually surrounds the microspheres, and the resulting augmented tissue helps to restore urinary continence. A second implantation may be performed if necessary, but no sooner than 6 weeks after the first. In vesicoureteral reflux in children, up to 50 mg may be injected into the submucosa of the ureter, creating a bulge close to the ureteral orifice. The procedure may be repeated after 3 months if necessary.

◊ References.

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