Preparations

USP 31: Aminohippurate Sodium Injection.

Ammi Visnaga Fruit

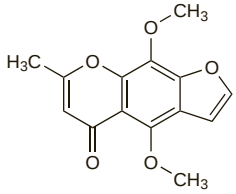
Biznaga, fruto de la; Khella; Khellah; Picktooth Fruit; Visnaga.

Khellin *(rINN)*

Kelina; Khelline; Khellinum; Visammin. 4,9-Dimethoxy-7-methyl-5*H*-furo[3,2-*g*]chromen-5-one.

Келлин

$C_{14}H_{12}O_5$ = 260.2.
CAS — 82-02-0.

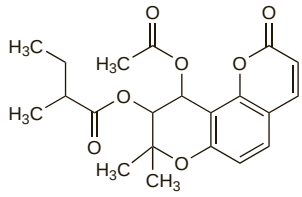


Visnadine *(BAN, rINN)*

Visnadina; Visnadinum. 10-Acetoxy-9,10-dihydro-8,8-dimethyl-2-oxo-2*H*,8*H*-pyrano[2,3-*f*]chromen-9-yl 2-methylbutyrate.

Виснадин

$C_{21}H_{24}O_7$ = 388.4.
CAS — 477-32-7.
ATC — C04AX24.
ATC Vet — QC04AX24.



Profile

Ammi visnaga fruit is used in herbal preparations.

Khellin and visnadine are vasodilators obtained from *Ammi visnaga* fruit or by synthesis. Khellin also has a bronchodilatory action and has been used in angina pectoris and asthma. Khellin has also been tried in conjunction with UV light to treat vitiligo (see Pigmentation Disorders, p.1582). Visnadine has been used in coronary, cerebral, and peripheral vascular disorders.

Homoeopathy. Ammi visnaga has been used in homoeopathic medicines under the following names: Ammi vis.

◊ References.

1. Hofer A, *et al.* Long-term results in the treatment of vitiligo with oral khellin plus UVA. *Eur J Dermatol* 2001 **11:** 225–9.

Preparations

Proprietary Preparations (details are given in Part 3)
Ger.: Khellangan N†.

Multi-ingredient: ***Austria:*** Urelium Neu; ***Ger.:*** Cefadrin; Oxacant-Khella N†; Stenocrat†; ***Pol.:*** Kelicardina; Nefrol.

Ammonia

Amoníaco, solución diluida de; Amonowy wodorotlenek; Amonyak.

CAS — 7664-41-7.

NH_3

NOTE. The food additive number E527 is used for ammonium hydroxide. Solutions of ammonia in water have been referred to as ammonium hydroxide solutions. Strong solutions of ammonia have also been described by the synonyms Ammoniaca, Ammoniacum, Ammoniaque Officinale, and Liquor Ammoniae Fortis. Dilute solutions of ammonia have also been referred to as Ammonia Water, Ammonium Hydricum Solutum, Liquor Ammoniae, and Liquor Ammoniae Dilutus.

Pharmacopoeias. Strong ammonia solutions are included in *Chin.* (25 to 28%), *Eur.* (see p.vii) (25 to 30%), and *USNF* (27 to 31%). Dilute ammonia solutions are included in *Br., Chin., Ger., Jpn,* and *Swiss* (all about 10%).

Ph. Eur. 6.2 (Ammonia Solution, Concentrated; Ammoniae Solutio Concentrata; Strong Ammonia Solution BP 2008). It contains between 25% and 30% (w/w) of ammonia, NH_3. A clear colourless liquid. Very caustic. Miscible with water and with alcohol. Store at a temperature not exceeding 20° in airtight containers.

BP 2008 (Dilute Ammonia Solution). It is prepared by diluting Strong Ammonia Solution with freshly boiled and cooled purified water. It contains 9.5 to 10.5% w/w of NH_3.

NOTE. The BP directs that when Ammonia Solution is prescribed or demanded, Dilute Ammonia Solution shall be dispensed or supplied.

USNF 26 (Strong Ammonia Solution). It contains between 27% and 31% (w/w) of NH_3. On exposure to air, it loses ammonia rapidly. A clear colourless liquid with an exceedingly pungent characteristic odour. Store at a temperature not exceeding 25° in airtight containers.

Handling. Strong ammonia solutions should be handled with great care because of the caustic nature of the solutions and the irritating properties of the vapour. Cool the container well before opening and avoid inhalation of the vapour.

Adverse Effects

Ingestion of strong solutions of ammonia causes severe pain in the mouth, throat, and gastrointestinal tract, as well as severe local oedema and salivation, with cough, vomiting, and shock. Burns to the oesophagus and stomach may result in perforation. Stricture formation, usually in the oesophagus, can occur weeks or months later. Ingestion may also cause oedema of the respiratory tract and pneumonitis, though this may not develop for a few hours.

Inhalation of ammonia vapour causes sneezing and coughing and in high concentration causes pulmonary oedema. Asphyxia has been reported after oedema or spasm of the glottis. Ammonia vapour is irritant to the eyes and causes weeping; there may be conjunctival swelling and temporary blindness.

Ammonia solution in contact with skin and eyes produces blistering and vesiculation; ammonia burns feel 'soapy' because of saponification of the tissues. Strong solutions on the conjunctiva cause a severe reaction with conjunctival oedema, corneal damage, and acute glaucoma. Late complications include angle-closure glaucoma, opaque corneal scars, atrophy of the iris, and formation of cataracts. Ammonia burns have resulted from treating insect bites and stings with the strong solution, and even with the dilute solution, especially if a dressing is subsequently applied.

◊ References.

1. Beare JDL, *et al.* Ammonia burns of the eye: an old weapon in new hands. *BMJ* 1988; **296:** 590.
2. WHO. Ammonia health and safety guide. *IPCS Health and Safety Guide 37*. Geneva: WHO, 1990. Available at: http://www.inchem.org/documents/hsg/hsg/hsg037.htm (accessed 04/04/06)
3. Payne MP, Delic JI. Ammonia. In: *Toxicity Review 24*. London: HMSO, 1991: 1–12.
4. Payne MP, *et al. Toxicology of substances in relation to major hazards: ammonia*. London: HMSO, 1991.
5. Leduc D, *et al.* Acute and long term respiratory damage following inhalation of ammonia. *Thorax* 1992; **47:** 755–7.
6. Michaels RA. Emergency planning and the acute toxic potency of inhaled ammonia. *Environ Health Perspect* 1999; **107:** 617–27.
7. Amshel CE, *et al.* Anhydrous ammonia burns case report and review of the literature. *Burns* 2000; **26:** 493–7.
8. Kerstein MD, *et al.* Acute management of exposure to liquid ammonia. *Mil Med* 2001; **166:** 913–14.

Toxicity from mixing cleaning agents. For reference to the adverse effects of mixing ammonia-based and hypochlorite-based cleaning agents see Sodium Hypochlorite, p.1661.

Treatment of Adverse Effects

Ingestion of ammonia solutions should not be treated by lavage or emesis. Milk or water have been given as diluents, but small volumes should be used to reduce the risk of inducing emesis. Appropriate measures should be taken to alleviate pain, shock, and pulmonary oedema, and maintain an airway.

Contaminated skin and eyes should be flooded immediately with water and the washing continued for at least 15 minutes. Any affected clothing should be removed while flooding is being carried out.

Uses and Administration

Dilute solutions of ammonia have been used as reflex stimulants either as smelling salts or oral solutions. They have also been used as rubefacients and counter-irritants (see p.5) and to neutralise insect stings. Users should always be aware of the irritant properties of ammonia.

Hartshorn and Oil was sometimes used as a name for an ammonia liniment. Household ammonia and cloudy ammonia have been used as names for cleaning preparations of ammonia with oleic acid or soap respectively. A saturated solution containing about 35% w/w and known as '0.880 ammonia' has been used in many chemical and industrial applications.

Stings. Bathers who were stung by Portuguese men-of-war (*Physalia physalis*) were rapidly and effectively relieved of discomfort, paresis, irritation, and other symptoms by the application of aromatic ammonia spirit compresses.[1]

1. Frohman IG. Treatment of physalia stings. *JAMA* 1966; **197:** 733.

Preparations

BP 2008: Aromatic Ammonia Solution; Aromatic Ammonia Spirit; Strong Ammonium Acetate Solution; White Liniment.

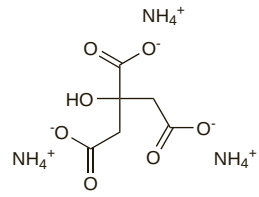
Proprietary Preparations (details are given in Part 3)
Canad.: After Bite; ***Israel:*** Afterbite; ***Spain:*** After Bite; Calmapica; ***Switz.:*** After Bite; ***UK:*** After Bite.

Multi-ingredient: ***Austral.:*** Senega and Ammonia; ***Austria:*** Rowalind; ***Canad.:*** Bronchex†; SJ Liniment; ***Chile:*** Rhus Opodeldoc; ***Cz.:*** Pain Expeller†; ***Hung.:*** Opodeldok†; ***Ital.:*** Baby Zanzara; Stilomagic†; ***S.Afr.:*** Enterodyne; ***Spain:*** Masagil; ***UK:*** Blistex Relief Cream; Goddards Embrocation; Mackenzies Smelling Salts; Pickles Smelling Salts; ***USA:*** Emergent-Ez.

Ammonium Citrate

Ammon. Cit.; Amonowy cytrynian; E380; Triammonium Citrate.

$C_6H_5O_7(NH_4)_3$ = 243.2.
CAS — 3458-72-8.



Profile

Ammonium citrate is used as a food additive and has been used in respiratory-tract disorders.

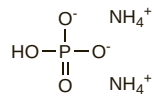
Preparations

Proprietary Preparations (details are given in Part 3)
Multi-ingredient: ***Chile:*** Ambrotos; Mucobrol.

Ammonium Phosphate ⊗

545 (ammonium polyphosphates); Amonowy wodorofosforan; Diammonium Hydrogen Phosphate; Dibasic Ammonium Phosphate; Fosfato de amonio. Diammonium hydrogen orthophosphate.

$(NH_4)_2HPO_4$ = 132.1.
CAS — 7783-28-0.



Pharmacopoeias. In *USNF.*

USNF 26 (Ammonium Phosphate). Colourless or white granules or powder. Freely soluble in water; practically insoluble in alcohol and in acetone. A 1% solution in water has a pH of 7.6 to 8.2. Store in airtight containers.

Profile

Ammonium phosphate was formerly used as a diuretic. It may be used as a buffering agent in pharmaceutical preparations.

Ammonium biphosphate (monobasic ammonium phosphate; $NH_4H_2PO_4$ = 115.0) has been used to acidify urine and as a phosphate supplement.

Preparations

Proprietary Preparations (details are given in Part 3)
Multi-ingredient: ***Fr.:*** Phosphore Medifa; ***Pol.:*** Phosphor.

Amnion

Amnios.

Profile

Human extra-embryonic fetal membranes comprise an inner amniotic membrane, the amnion, and an outer membrane, the chorion. Amnion is used in ocular surgery for a range of conditions. Both amnion and combined membranes have been used as a dressing for raw wounds including chronic ulcers and burns.

Amylase

Amilasa; Amylaza; Diastase; Glucogenase; Ptyalin.

CAS — 9000-92-4 (amylase); 9000-85-5 (bacterial α-amylase); 9000-90-2 (porcine α-amylase, pancreatic); 9001-19-8 (taka-diastase);.
ATC — A09AA01.
ATC Vet — QA09AA01.

Pharmacopoeias. In *Fr.* and *Jpn.*

Adverse Effects

Hypersensitivity reactions have been reported.

Hypersensitivity. References to asthma developing after occupational exposure to amylases used in the flour milling[1-3] and detergent[4,5] manufacturing industries, and studies[6-8] to assess the likelihood of developing amylase hypersensitivity after ingesting wheat products including bread.

1. Smith TA, *et al.* Respiratory symptoms and wheat flour exposure: a study of flour millers. *Occup Med (Lond)* 2000; **50:** 25–9.
2. Cullinan P, *et al.* Allergen and dust exposure as determinants of work-related symptoms and sensitization in a cohort of flour-exposed workers; a case-control analysis. *Ann Occup Hyg* 2001; **45:** 97–103.
3. Quirce S, *et al.* Glucoamylase: another fungal enzyme associated with baker's asthma. *Ann Allergy Asthma Immunol* 2002; **89:** 197–202.
4. Hole AM, *et al.* Occupational asthma caused by bacillary amylase used in the detergent industry. *Occup Environ Med* 2000; **57:** 840–2.
5. Cullinan P, *et al.* An outbreak of asthma in a modern detergent factory. *Lancet* 2000; **356:** 1899–1900.
6. Cullinan P, *et al.* Clinical responses to ingested fungal alpha-amylase and hemicellulase in persons sensitized to Aspergillus fumigatus? *Allergy* 1997; **52:** 346–9.
7. Sander I, *et al.* Is fungal alpha-amylase in bread an allergen? *Clin Exp Allergy* 2000; **30:** 560–5.
8. Simonato B, *et al.* IgE binding to soluble and insoluble wheat flour proteins in atopic and non-atopic patients suffering from gastrointestinal symptoms after wheat ingestion. *Clin Exp Allergy* 2001; **31:** 1771–8.

Uses and Administration

The term amylase refers to an enzyme catalysing the hydrolysis of α-1,4-glucosidic linkages of polysaccharides such as starch, glycogen, or their degradation products. Amylases may be classified according to the manner in which the glucosidic bond is attacked. Endoamylases attack the α-1,4-glucosidic linkage at random. Alpha-amylases are the only types of endoamylases known and yield dextrins, oligosaccharides, and monosaccharides. The more common alpha-amylases include those isolated from human saliva, mammalian pancreas, *Bacillus subtilis, Aspergillus oryzae*, and barley malt. Exoamylases attack the α-1,4-glucosidic linkage only from the non-reducing outer polysaccharide chain ends. They include beta-amylases and glucoamylases (amyloglucosidases or gamma-amylases) and are of vegetable or microbial origin. Beta-amylases yield beta-limit dextrins and maltose, and glucoamylases yield glucose.

Amylase is used in the production of predigested starchy foods and for the conversion of starch to fermentable sugars in the baking, brewing, and fermentation industries.

Amylase from various sources has been used as an ingredient of preparations of mixed digestive enzymes, and has been given by mouth for its supposed activity in reducing respiratory-tract inflammation and local swelling and oedema. Pancreatic enzymes such as pancreatin (p.2360) and pancrelipase (p.2360) have amylase activity.

Preparations

Proprietary Preparations (details are given in Part 3)
Cz.: Orenzym; ***Fr.:*** Flaviastase; Maxilase; Megamylase; Ribamylase; ***Port.:*** Maxilase.

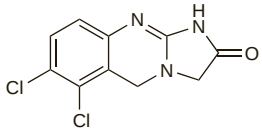
Multi-ingredient: ***Arg.:*** Docechol; Dom-Polienzim; Gastridin-E; Homocisteon Compuesto; Pakinase; Polienzim; Tridigestivo Soubeiran; ***Austral.:*** Enzyme; ***Austria:*** Wobenzym; ***Belg.:*** Digestomen; ***Braz.:*** Bromelin†; Enziprid†; Essen; Filogaster†; Pantopept†; Primeral; Thiomucase; ***Canad.:*** Digesta; ***Chile:*** Flapex E; ***Cz.:*** Wobenzym; ***Ger.:*** Enzym-Wied†; ***Hong Kong:*** Digezym; Enzyplex; Magesto; ***India:*** Aristozyme; Bestozyme; Catazyme-P; Digeplex; Digeplex-T; Dipep; Farizym; Lupizyme; Molzyme†; Neopeptine; Nutrozyme; Papytazyme; Sanzyme-DS; Unienzyme; Vitazyme; ***Indon.:*** Aludonna; Enzyplex; Excelase-E; Librozym; Librozym Plus; Vitazym; Xepazym; ***Ital.:*** Digestopan†; Essen Enzimatico†; ***Jpn:*** Cabagin; ***Malaysia:*** Biotase; Enzyplex; Pepfiz; ***Mex.:*** Ochozim; Wobenzym; Zimotris; ***Port.:*** Modulanzime; ***Rus.:*** Pepfiz (Пепфиз); Wobenzym (Вобэнзим); ***Singapore:*** Biotase; Enzyplex; Weisen-U†; ***Spain:*** Demusin; Digestomen Complex; Paidozim; ***Switz.:*** Zymoplex†; ***Thai.:*** Diasgest; Digestin; Endogest†; Enzyplex; Flatulence; Magesto; Mesto-Of; Papytazyme†; Pepfiz; Pepsitase; Polyenzyme-I; ***UK:*** Enzyme Digest; Enzyme Plus; ***USA:*** Enzyme; Ku-Zyme; Kutrase; Papaya Enzyme; ***Venez.:*** Festal Reformulado.

Anagrelide Hydrochloride *(BANM, USAN, rINNM)*

Anagrélide, Chlorhydrate d'; Anagrelidi Hydrochloridum; BL-4162a; BMY-26538-01; Hidrocloruro de anagrelida. 6,7-Dichloro-1,5-dihydroimidazo[2,1-*b*]quinazolin-2(3*H*)-one hydrochloride.

Анагрелида Гидрохлорид

$C_{10}H_7Cl_2N_3O,HCl$ = 292.5.
CAS — 68475-42-3 (anagrelide); 58579-51-4 (anagrelide hydrochloride).
ATC — L01XX35.
ATC Vet — QL01XX35.



(anagrelide)

Adverse Effects

Adverse effects most commonly reported with anagrelide include headache, palpitations and tachycardia, fluid retention, diarrhoea, nausea, and abdominal pain; fatigue, dizziness, flatulence, vomiting, dyspnoea, skin rash, and anaemia have also occurred. Cardiovascular effects also include vasodilatation and positive inotropic effects; myocardial infarction, cardiomyopathy and heart failure have been reported. Anagrelide has been shown to be embryotoxic and fetotoxic in *animal* studies.

Effects on the heart. High-output heart failure occurred in a patient given anagrelide for essential thrombocytosis.[1] Clinical and haemodynamic adverse effects resolved almost immediately on stopping anagrelide.

1. Engel PJ, *et al.* High-output heart failure associated with anagrelide therapy for essential thrombocytosis. *Ann Intern Med* 2005; **143:** 311–13.

Effects on the lungs. Severe life-threatening hypersensitivity pneumonitis has been associated with anagrelide.[1]

1. Raghavan M, *et al.* Severe hypersensitivity pneumonitis associated with anagrelide. *Ann Pharmacother* 2003; **37:** 1228–31.

Erectile dysfunction. Erectile dysfunction associated with anagrelide therapy has been reported in a patient.[1]

1. Braester A, Laver B. Anagrelide-induced erectile dysfunction. *Ann Pharmacother* 2002; **36:** 1291.

Precautions

Anagrelide is mainly removed from the body by hepatic metabolism, and its use is contra-indicated in patients with severe hepatic impairment. In the UK it is additionally contra-indicated in those with moderate impairment, but in the USA its use is permitted in such patients at reduced doses (see below). Licensed drug information in the UK also contra-indicates its use in those with moderate to severe renal impairment (creatinine clearance less than 50 mL/minute).

Anagrelide should be used with caution in patients with cardiovascular disease. Cardiac function should be assessed in patients before and during treatment, and patients monitored for cardiovascular adverse effects during treatment. For precautions in patients taking anagrelide with aspirin, see Interactions, below.

Platelet counts should be monitored closely, especially at the start of treatment (see Uses and Administration, below). Haemoglobin, white blood cells, and hepatic and renal function should also be monitored until a maintenance dose is established.

Dizziness may affect the performance of skilled tasks such as driving.

Anagrelide should not be used during pregnancy.

Interactions

There is the theoretical possibility that inhibitors of the cytochrome P450 isoenzyme CYP1A2, including grapefruit juice, could reduce the clearance of anagrelide. Anagrelide itself demonstrates limited inhibitory activity towards CYP1A2. Anagrelide may exacerbate the effects of other phosphodiesterase inhibitors such as amrinone, cilostazol, enoximone, milrinone, and olprinone that also produce positive inotropic effects.

Potentiation of the effects of other drugs that modify platelet function when given with anagrelide is a theoretical possibility; although no clinically significant effects have been seen when given with aspirin, the UK manufacturer suggests that the risk-benefit potential should be assessed before using both drugs in patients with a platelet count above 1 500 000 cells/mm^3 and/or a history of haemorrhage.

Pharmacokinetics

Anagrelide is well absorbed from the gastrointestinal tract with peak plasma concentrations occurring about 1 hour after an oral dose on an empty stomach, increasing to 3 hours in the presence of food, although this appears to have no clinically significant effect on bioavailability. It is extensively metabolised, primarily by the cytochrome P450 isoenzyme CYP1A2, and eliminated in the urine; less than 1% of a dose is excreted unchanged. The plasma half-life is about 1.3 hours.

Uses and Administration

Anagrelide is an inhibitor of cyclic AMP phosphodiesterase III that reduces platelet production and, at higher than therapeutic doses, inhibits platelet aggregation. It is used to treat primary (essential) thrombocythaemia (p.654) in patients intolerant of, or unresponsive to, other therapy, and also in thrombocythaemia secondary to other myeloproliferative disorders.

Anagrelide is given orally as the hydrochloride monohydrate ($C_{10}H_7Cl_2N_3O,HCl,H_2O$ = 310.6) but doses are expressed in terms of the base; 1.2 mg of anagrelide hydrochloride monohydrate is equivalent to about 1 mg of anagrelide. The initial dose is the equivalent of anagrelide 1 mg daily in 2 divided doses. After at least a week, the dose is adjusted, by increasing the daily dose by not more than 500 micrograms in any one week, until the platelet count is maintained within the normal range. The usual maintenance dose is 1 to 3 mg daily. The dose should not exceed 10 mg daily or 2.5 mg as a single dose. In the USA, a higher initial dose of 2 mg daily, divided into 2 or 4 doses, is used; an initial daily dose of 500 micrograms is recommended in children. For doses to be used in patients with hepatic impairment, see below.

The effects of anagrelide therapy must be regularly monitored: platelet counts should be measured every 2 days during the first week of treatment and then at least weekly until the maintenance dose is reached.

◊ References.

1. Spencer CM, Brogden RN. Anagrelide: a review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in the treatment of thrombocythaemia. *Drugs* 1994; **47:** 809–22.
2. Chintagumpala MM, *et al.* Treatment of essential thrombocythemia with anagrelide. *J Pediatr* 1995; **127:** 495–8.
3. Petitt RM, *et al.* Anagrelide for control of thrombocythemia in polycythemia and other myeloproliferative disorders. *Semin Hematol* 1997; **34:** 51–4.
4. Oertel MD. Anagrelide, a selective thrombocytopenic agent. *Am J Health-Syst Pharm* 1998; **55:** 1979–86.
5. Lackner H, *et al.* Treatment of children with anagrelide for thrombocythemia. *J Pediatr Hematol Oncol* 1998; **20:** 469–73.
6. Bellucci S, *et al.* Studies of platelet volume, chemistry and function in patients with essential thrombocythaemia treated with anagrelide. *Br J Haematol* 1999; **104:** 886–92.
7. Pescatore SL, Lindley C. Anagrelide: a novel agent for the treatment of myeloproliferative disorders. *Expert Opin Pharmacother* 2000; **1:** 537–46.
8. Dingli D, Tefferi A. Anagrelide: an update on its mechanisms of action and therapeutic potential. *Expert Rev Anticancer Ther* 2004; **4:** 533–41.
9. Steurer M, *et al.* Anagrelide for thrombocytosis in myeloproliferative disorders: a prospective study to assess efficacy and adverse event profile. *Cancer* 2004; **101:** 2239–46.
10. Wagstaff AJ, Keating GM. Anagrelide: a review of its use in the management of essential thrombocythaemia. *Drugs* 2006; **66:** 111–31.

Administration in hepatic impairment. UK licensed drug information recommends that anagrelide should not be given to patients with moderate or severe hepatic impairment. In the USA, anagrelide therapy is not recommended in patients with severe hepatic impairment, although patients with moderate hepatic impairment have been given anagrelide in an initial daily dose of 500 micrograms, which should be maintained for a minimum of 1 week and with cardiovascular monitoring; the daily dose may then be increased cautiously as above.

Preparations

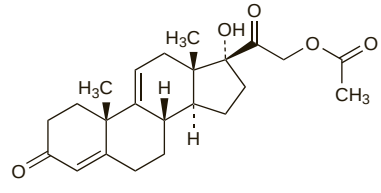
Proprietary Preparations (details are given in Part 3)
Arg.: Agrelid; ***Austral.:*** Agrylin; ***Austria:*** Thromboreductin; ***Belg.:*** Xagrid; ***Braz.:*** Agrylin†; ***Canad.:*** Agrylin; ***Cz.:*** Thromboreductin; Xagrid; ***Denm.:*** Xagrid; ***Fin.:*** Xagrid; ***Fr.:*** Xagrid; ***Ger.:*** Agrylin†; Xagrid; ***Hong Kong:*** Agrylin; Thromboreductin; ***Hung.:*** Thromboreductin; ***Indon.:*** Agrylin; Thromboreductin; ***Irl.:*** Xagrid; ***Israel:*** Agrylin; ***Ital.:*** Xagrid; ***Malaysia:*** Thromboreductin; ***Neth.:*** Xagrid; ***Norw.:*** Xagrid; ***Philipp.:*** Agrylin; ***S.Afr.:*** Agrylin; ***Spain:*** Xagrid; ***Swed.:*** Xagrid; ***Switz.:*** Xagrid; ***UK:*** Xagrid; ***USA:*** Agrylin.

Anecortave *(rINN)*

AL-3789; Anecortava; Anécortave; Anecortave Acetate *(USAN)*; Anecortavum. 17,21-Dihydroxypregna-4,9(11)-diene-3,20-dione 21-acetate.

Анекортав

$C_{23}H_{30}O_5$ = 386.5.
CAS — 7753-60-8.
ATC — S01LA02.
ATC Vet — QS01LA02.



Profile

Anecortave is an angiostatic cortisene under investigation for the treatment of patients with neovascular (wet) age-related macular degeneration (p.785). It is similar in structure to cortisol acetate but without any glucocorticoid activity and is able to inhibit several steps of the neovascularisation process. It is given by posterior juxtascleral depot injection and is available in some countries for compassionate use on a named-patient basis.

◊ References.

1. Clark AF. Mechanism of action of the angiostatic cortisene anecortave acetate. *Surv Ophthalmol* 2007; **52** (suppl 1): S26–S34.
2. Regillo CD, *et al.* Clinical safety profile of posterior juxtascleral depot administration of anecortave acetate 15 mg suspension as primary therapy or adjunctive therapy with photodynamic therapy for treatment of wet age-related macular degeneration. *Surv Ophthalmol* 2007; **52** (suppl 1): S70–S78.
3. Russell SR, *et al.* Anecortave acetate for the treatment of exudative age-related macular degeneration—a review of clinical outcomes. *Surv Ophthalmol* 2007; **52** (suppl 1): S79–S90.
4. Geltzer A, *et al.* Surgical implantation of steroids with antiangiogenic characteristics for treating neovascular age-related macular degeneration. Available in The Cochrane Database of Systematic Reviews; Issue 4. Chichester: John Wiley; 2007 (accessed 08/04/08).