dures, p.1181), use of abciximab as an adjunct to heparin and aspirin improves short-term[1-3] and long-term[4,5] outcomes in various groups of patients, including those receiving coronary stents.[6-8] Most benefit has been seen in patients given abciximab as a bolus injection immediately before intervention followed by intravenous infusion for 12 hours,[1,2] and in a study[9] in which abciximab was given for 18 to 24 hours before angioplasty and for 1 hour after, the initial benefit was not maintained at 6 months.

For patients undergoing PCI who are pretreated with both aspirin and clopidogrel, the role of abciximab is less clear. In stable patients undergoing elective PCI, no benefit was found at 30 days,[10] or at 1 year.[11] A study[12] in diabetic patients also found no effect on mortality or risk of myocardial infarction at 1 year, despite their higher risk, although restenosis was reduced. However, in patients undergoing PCI for non-ST elevation acute coronary syndromes, use of abciximab in addition to aspirin and clopidogrel pretreatment improved clinical outcomes at 30 days, although this effect was restricted to patients with raised troponins.[13] Positive results have also been reported[14,15] with abciximab given as a single bolus injection without subsequent infusion in patients undergoing coronary stenting.

In *acute ST-elevation myocardial infarction* (p.1175), abciximab has been used as an adjunct to primary PCI, including coronary stenting, and has been shown to reduce reinfarction rates and mortality,[16] with benefit persisting long-term.[17] There is some evidence that starting treatment as soon as possible rather than immediately before the procedure may provide additional benefit.[18,19] Abciximab has also been used as an adjunct to thrombolysis and some benefit has been shown,[20] but this appears to be offset by an increased bleeding rate, even when reduced doses of thrombolytics are used.[21,22] In patients with *unstable angina* (p.1157) receiving noninterventional treatment, a large study[23] with abciximab failed to show any benefit over placebo, although other glycoprotein IIb/IIIa inhibitors have a role in such patients.

Some promising results have been reported with intracoronary abciximab in patients with acute coronary syndromes,[24] and with abciximab-coated stents in patients with acute myocardial infarction.[25]

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Preparations

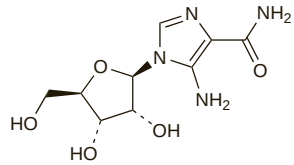
Proprietary Preparations (details are given in Part 3)
Arg.: ReoPro†; ***Austral.:*** ReoPro; ***Austria:*** ReoPro; ***Belg.:*** ReoPro; ***Braz.:*** ReoPro; ***Canad.:*** ReoPro; ***Chile:*** ReoPro; ***Cz.:*** ReoPro; ***Denm.:*** ReoPro; ***Fin.:*** ReoPro; ***Fr.:*** ReoPro; ***Ger.:*** ReoPro; ***Gr.:*** ReoPro; ***Hong Kong:*** ReoPro; ***India:*** ReoPro; ***Irl.:*** ReoPro; ***Israel:*** ReoPro; ***Ital.:*** ReoPro; ***Malaysia:*** ReoPro; ***Mex.:*** ReoPro; ***Neth.:*** ReoPro; ***Norw.:*** ReoPro; ***NZ:*** ReoPro; ***Pol.:*** ReoPro; ***Port.:*** ReoPro; ***Rus.:*** ReoPro (Реопро); ***S.Afr.:*** ReoPro; ***Singapore:*** ReoPro; ***Spain:*** ReoPro; ***Swed.:*** ReoPro; ***Switz.:*** ReoPro; ***Thai.:*** ReoPro; ***UK:*** ReoPro; ***USA:*** ReoPro.

Acadesine *(BAN, USAN, rINN)*

Acadesina; Acadésine; Acadesinum; AICA Riboside; GP-1-110; GP-1-110-0. 5-Amino-1-(β-D-ribofuranosyl)imidazole-4-carboxamide.

Акадезин

$C_9H_{14}N_4O_5$ = 258.2.
CAS — 2627-69-2.
ATC — C01EB13.
ATC Vet — QC01EB13.



Profile

Acadesine is a purine nucleoside analogue reported to have cardioprotective effects. It is being investigated in the management of myocardial ischaemia, particularly in patients undergoing coronary artery bypass graft surgery. Acadesine may protect against further ischaemia by influencing metabolism in ischaemic cells, enhancing the release of adenosine in preference to inosine after the breakdown of adenosine monophosphate.

Acadesine is also under investigation for chronic lymphocytic leukaemia.

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ACE Inhibitors

Angiotensin-converting Enzyme Inhibitors; Inhibidores de la ECA.

There appear to be few significant differences between ACE inhibitors. They may be distinguished from each other by the presence or absence of a sulfhydryl group, whether they are prodrugs or not, their route of elimination, and their affinity for angiotensin-converting enzyme in vascular and other tissue, although whether these characteristics modify pharmacodynamics and therefore clinical efficacy is uncertain. Differences in these characteristics do however influence onset and duration of action of ACE inhibitors.

Adverse Effects and Treatment

Many of the adverse effects of ACE inhibitors relate to their pharmacological action and all therefore have a similar spectrum of adverse effects. Some effects, such as taste disturbances and skin reactions, were at one time attributed to the presence of a sulfhydryl group (as in captopril) but have now also been reported with other ACE inhibitors; however, they may be more common with captopril.

The most common adverse effects are due to the vascular effects of ACE inhibitors and include hypotension, dizziness, fatigue, headache, and nausea and other gastrointestinal disturbances.

Pronounced hypotension may occur at the start of therapy with ACE inhibitors, particularly in patients with heart failure and in sodium- or volume-depleted patients (for example, those given previous diuretic therapy). Myocardial infarction and stroke have been reported and may relate to severe falls in blood pressure in patients with ischaemic heart disease or cerebrovascular disease. Other cardiovascular effects that have occurred include tachycardia, palpitations, and chest pain.

Deterioration in renal function, including increasing blood concentrations of urea and creatinine, may occur, and reversible acute renal failure has been reported. Renal effects are most common in patients with existing renal or renovascular dysfunction or heart failure, in whom vasodilatation reduces renal perfusion pressure; it may be aggravated by hypovolaemia. Proteinuria has also occurred and in some patients has progressed to nephrotic syndrome. Hyperkalaemia and hyponatraemia may develop due to decreased aldosterone secretion.

Other adverse effects include persistent dry cough and other upper respiratory tract symptoms, and angioedema; these may be related to effects on bradykinin or prostaglandin metabolism. Skin rashes (including erythema multiforme and toxic epidermal necrolysis) may occur; photosensitivity, alopecia, and other hypersensitivity reactions have also been reported.

Blood disorders have been reported with ACE inhibitors and include neutropenia and agranulocytosis (especially in patients with renal failure and in those with collagen vascular disorders such as systemic lupus erythematosus and scleroderma), thrombocytopenia, and anaemias.

Other less common adverse effects reported with ACE inhibitors include stomatitis, abdominal pain, pancreatitis, hepatocellular injury or cholestatic jaundice, muscle cramps, paraesthesias, mood and sleep disturbances, and impotence.

ACE inhibitors have been associated with fetal toxicity (see Pregnancy under Precautions, below).

Most of the adverse effects of ACE inhibitors are reversible on withdrawing therapy. Symptomatic hypotension, including that after overdosage, generally responds to volume expansion with an intravenous infusion of sodium chloride 0.9%.

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