Parietal bone mobility in the anesthetized cat

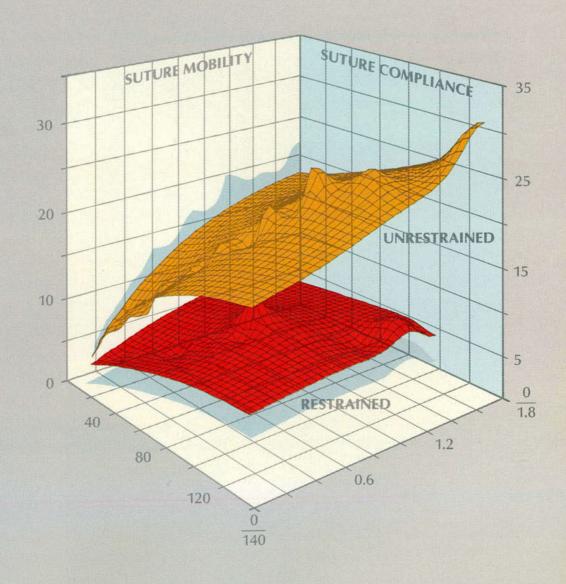
Reverse cholesterol transport

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Treat hypertension at its source with...

ONCE-A-DAY

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CARDURA is well tolerated. Only three common side effects were different from placebo: dizziness, somnolence, and fatigue. These were generally mild and transient; only 2% of patients in placebo-controlled studies discontinued due to adverse effects—the same rate as placebo. Syncope has been reported, but rarely (< 1%).



Convenient once-a-day dosage Most responsive patients are controlled with one daily dose of 4 to 8 mg1

recommended initial dose is 1 mg, with dosage range of 1 mg to 16 mg per day.

Reference: 1. Data available on request from Roerig. CARDURA® (doxazosin mesylate) Tablets Brief Summary of Prescribing Information

INDICATIONS AND USAGE CARDURA (doxazosin mesylate) is indicated for the treatment of hypertension.

CARDURA may be used alone or in combination with diuretics or beta-adrenergic blocking agents. There is limited experience with CARDURA in combination with anglotensin converting enzyme inhibitors or calcium channel blockers. CONTRAINDICATIONS

CARDURA is contraindicated in patients with a known sensitivity to guinazolines , terazosin).

WARNINGS

Syncope and "First-dose" Effect:

Doxazosin, like other alpha-adrenergic blocking agents, can cause marked hypotension, especially in the upright position, with syncope and other postural symptoms such as dizziness. Marked orthostatic effects are most common with the first dose but can also occur when there is a dosage increase, or if therapy is interrupted for more than a few days. To decrease the likelihood of excessive hypotension and syncope, it is essential that treatment be initiated with the 1 mg dose. The 2, 4, and 8 mg tablets are not for initial therapy. Dosage should then be adjusted slowly (see DOSAGE AND ADMINISTRATION section) with increases in dose every two weeks. Additional antihypertensive agents should be added with caution.

Patients being titrated with doxazosin should be cautioned to avoid situations where injury could result should syncope occur.

In an early investigational study of the safety and tolerance of increasing daily oses of doxazosin in normotensives beginning at 1 mg/day, only 2 of 6 subjects could tolerate more than 2 mg/day without experiencing symptomatic postural hypotension. In another study of 24 healthy normotensive male subjects receiving initial doses of 2 mg/day of doxazosin, seven (29%) of the subjects experienced symptomatic postural hypotension between 0.5 and 6 hours after the first dose necessitating termination of the study. In this study 2 of the normotensive subjects experienced syncope. Subsequent trials in hypertensive patients always began doxazosin dosing at 1 mg/day resulting in a 4% incidence of postural side

effects at 1 mg/day with no cases of syncope.

In multiple dose clinical trials involving over 1500 patients with dose titration every one to two weeks, syncope was reported in 0.7% of patients. None of these events occurred at the starting dose of 1 mg and 1.2% (8/664) occurred at 16

If syncope occurs, the patient should be placed in a recumbent

position and treated supportively as necessary. PRECAUTIONS

1. Orthostatic Hypotension:

While syncope is the most severe orthostatic effect of CARDURA, other symptoms of lowered blood pressure, such as dizziness, lightheadedness, or vertigo, can or ordered double pressure, source automatic participation of therapy or at the time of dose increases. These were common in clinical trials, occurring in up to 23% of all patients treated and causing discontinuation of therapy in about 2%.

In placebo controlled triation trials orthostatic effects were minimized by beginning therapy at 1 mg per day and titrating every two weeks to 2, 4, or 8 mg per day. There was an increased frequency of orthostatic effects in patients given 8 mg or more, 10%, compared to 5% at 1-4 mg and 3% in the placebo group. Patients in occupations in which orthostatic hypotension could be dangerous

should be treated with particular caution.

If hypotension occurs, the patient should be placed in the supine position and,

if this measure is inadequate, volume expansion with intravenous fluids or vasopressor therapy may be used. A transient hypotensive response is not a contraindication to further doses of CARDURA

Impaired liver function: CARDURA should be administered with caution to patients with evidence of impaired hepatic function or to patients receiving drugs known to influence hepatic metabolism (see CLINICAL PHARMACOLOGY). There is no controlled clinical experience with CARDURA in patients with these conditions

 Leukopenia/Neutropenia:
 Analysis of hematologic data from patients receiving CARDURA in controlled clinical trials showed that the mean WBC (N=474) and mean neutrophil counts (N=419) were decreased by 2.4% and 1.0% respectively, compared to placebo, a phenomenon seen with other alpha blocking drugs. A search through a data base out 1400 patients revealed 4 in which drug-related neutropenia could not be ruled out. Two had a single low value on the last day of treatment. Two had stable, nonprogressive neutrophil counts in the 1000/mm³ range over periods of 20 and 40 weeks. In cases where follow-up was available the WBCs and neutrophil counts returned to normal after discontinuation of CARDURA. No patients became symptomatic as a result of the low WBC or neutrophil counts.

Information for Patients:

Patients should be made aware of the possibility of syncopal and orthostatic symptoms, especially at the initiation of therapy, and urged to avoid driving or hazardous tasks for 24 hours after the first dose, after a dosage increase, and after interruption of therapy when treatment is resumed. They should be cautioned to avoid situations where injury could result should syncope occur during initiation. of doxazosin therapy. They should also be advised of the need to sit or lie down when symptoms of lowered blood pressure occur, although these symptoms are not always orthostatic, and to be careful when rising from a sitting or lying position. If dizziness, lightheadedness, or palpitations are bothersome they should be reported to the physician, so that dose adjustment can be considered. Patients should also be told that drowsiness or somnolence can occur with doxazosin, requiring caution in people who must drive or operate heavy machinery

Begin all patients with CARDURA 1 mg once daily to mini-mize side effects. Evaluate supine and standing blood pressure. Prescribe CARDURA 2 mg once daily, if necessary.



Evaluate for blood pressure control. Prescribe 4 mg once daily, if necessary.



Evaluate for blood pressure control. Prescribe 8 mg once daily, if necessary. Maximum recommended dosage is 16 mg once daily.



Most (98%) of plasma doxazosin is protein bound. In vitro data in human plasma indicate that CARDURA has no effect on protein binding of digoxin, warfarin, phenytoin or indomethacin. There is no information on the effect of other highly plasma protein bound drugs on doxazosin binding. CARDURA has been administered without any evidence of an adverse drug interaction to patients receiving thiazide diuretics, beta blocking agents, and nonsteroidal anti-

Drug/Laboratory test interactions:

Cardiac Toxicity in Animals:

An increased incidence of myocardial necrosis or fibrosis was displayed by Sprague-Dawley rats after 6 months of dietary administration at concentrations calculated to provide 80 mg doxazosin/kg/day and after 12 months of dietary administration at concentrations calculated to provide 40 mg doxazosin/kg/day (150 times the maximum recommended human dose assuming a patient weight of 60 kg). There is no evidence that similar lesions occur in humans.

Corcinogenesis, Mutagenesis and Impairment of Fertility:
Chronic dietary administration (up to 24 months) of doxazosin mesylate at
maximally tolerated concentrations (highest dose 40 mg/ks; about 150 times the
maximum recommended human dose of 16 mg/60 kg) revealed no evidence of
carcinogenicity in rats. There was also no evidence of carcinogenicity in a similarly conducted study (up to 18 months of dietary administration) in mice. The mouse study, however, was compromised by the failure to use a maximally

Mutagenicity studies revealed no drug- or metabolite-related effects at either chromosomal or subchromosomal levels.

Studies in rats showed reduced fertility in males treated with doxazosin at oral doses of 20 (but not 5 or 10) mg/kg/day, about 75 times the maximum recommended human dose. This effect was reversible within two weeks of drug withdrawal

Teratogenic Effects, Pregnancy Category B. Studies in rabbits and rats at daily oral doses of up to 40 and 20 mg/kg, respectively (150 and 75 times the mum recommended daily dose of 16 mg, assuming a patient weight of 60 kg), have revealed no evidence of harm to the fetus. The rabbit study, however, was compromised by the failure to use a maximally tolerated dose of doxazosin. There are no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response,

CARDURA should be used during pregnancy only if clearly needed.

Radioactivity was found to cross the placenta following oral administration of labelled doxazosin to pregnant rats.

Nonteratogenic Effects. In peri-postnatal studies in rats, postnatal development at maternal doses of 40 or 50 mg/kg/day of doxazosin was delayed as evidenced by slower body weight gain and a slightly later appearance of anatomical features and reflexes.

It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when CARDURA is administered to a nursing mother.

Pediatric Use

in children have not been established ADVERSE REACTIONS

CARDURA has been administered to approximately 4000 patients, of whom 1679 were included in the clinical development program. In that program, minor adverse effects were frequent, but led to discontinuation of treatment in only 7% of patients. In placebo-controlled studies adverse effects occurred in 49% and 40% of patients in the doxazosin and placebo groups, respectively, and led to discontinuation in 2% of patients in each group. The major reasons for discontinuation were postural effects (2%), edema, malaise/fatigue, and some heart rate disturbance, each about 0.7%.

In controlled clinical trials directly comparing CARDURA to placebo there was no significant difference in the incidence of side effects, except for dizziness (including postural), weight gain, somnolence and fatigue/malaise. Postural effects and edema appeared to be dose related.

The prevalence rates presented below are based on combined data from

placebo-controlled studies involving once daily administration of dovazosin at doses ranging from 1-16 mg. Table 1 summarizes those adverse experiences (possibly/probably related) reported for patients in these studies where the prevalence rate in the doxazosin group was at least 0.5% or where the reaction is of particular interest

		DOXAZOSIN (N=339)	PLACEBO (N=336)
CARDIOVASCULAR	Dizziness Vertigo Postural Hypotension Edema Palpitation Arrhythmia Hypotension Tachycardia Peripheral Ischemia	19% 2% 0.3% 4% 2% 1% 1% 0.3%	9% 1% 0% 3% 3% 0% 0% 1% 0%
SKIN APPENDAGES	Rash	1%	1%
	Pruritus	1%	1%
MUSCULOSKELETAL	Arthralgia/Arthritis	1%	0%
	Muscle Weakness	1%	0%
	Myalgia	1%	0%

		DOXAZOSIN (N=339)	PLACEBO (N=336)
CENTRAL & PERIPHERAL N.S.	Headache Paresthesia Kinetic Disorders	14% 1% 1%	16% 1% 0%
	Ataxia Hypertonia Muscle Cramps	1% 1% 1%	0% 0% 0%
AUTONOMIC	Mouth Dry	2%	2%
	Flushing	1%	0%
SPECIAL SENSES	Vision Abnormal	2%	1%
	Conjunctivitis/Eye Pai	n 1%	1%
	Tinnitus	1%	0.3%
PSYCHIATRIC	Somnolence	5%	1%
	Nervousness	2%	2%
	Depression	1%	1%
	Insomnia	1%	1%
	Sexual Dysfunction	2%	1%
GASTROINTESTINAL	Nausea Diarrhea Constipation Dyspepsia Flatulence Abdominal Pain Vomiting	3% 2% 1% 1% 1% 0% 0%	4% 3% 1% 1% 1% 2% 1%
RESPIRATORY	Rhinitis	3%	1%
	Dyspnea	1%	1%
	Epistaxis	1%	0%
URINARY	Polyuria	2%	0%
	Urinary Incontinence	1%	0%
	Micturation Frequency	0%	2%
GENERAL	Fatigue/Malaise	12%	6%
	Chest Pain	2%	2%
	Asthenia	1%	1%
	Face Edema	1%	0%
	Pain	2%	2%

Additional adverse reactions have been reported, but these are, in general, not distinguishable from symptoms that might have occurred in the absence of exposure to doxazosin. The following adverse reactions occurred with a frequency of between 0.5% and 1%: syncope, hypoesthesia, increased sweating, agitation, increased weight. The following additional adverse reactions were reported by <0.5% of 3960 patients who received doxazosin in controlled or open, short- or long-term clinical studies, including international studies. Cardiovascula System: angina pectoris, myocardial infarction, cerebrovascular accident; Autonomic Nervous System: pallor: Metabolic: thirst, gout, hypokalemia; Hematopoietic: lymphadenopathy, purpura: Reproductive System: breast pain; Skin Disorders: alopecia, dry skin, eczema; Central Nervous System: paresis, tremor, twitching, confusion, migraine, impaired concentration; Psychiatric: paroniria, amnesia, emotional lability, abnormal thinking, depersonalization; Special Senses: parosmia, earache, taste perversion, photophobia, abnormal lacrimation; Gastrointestinal System: increased appetite, ancrexia, tecal incontinence, gastroenteritis; Respiratory System: bronchospasm, sinusitis, coughing, pharyngitis; Urinary System: renal calculus; General Body System: hot flashes, back pain, infection, fever/rigors, decreased weight, influenza-like

CARDURA has not been associated with any clinically significant changes in routine biochemical tests. No clinically relevant adverse effects were noted on serum potassium, serum glucose, uric acid, blood urea nitrogen, creatinine or liver function tests. CARDURA has been associated with decreases in white blood Il counts (See Precautions)

OVERDOSAGE

The oral LO₅₀ of doxazosin is greater than 1000 mg/kg in mice and rats. The most likely manifestation of overdosage would be hypotension, for which the usual treatment would be intravenous infusion of fluid. As doxazosin is highly n bound, dialysis would not be indicated.

DOSAGE AND ADMINISTRATION

DOSAGE MUST BE INDIVIDUALIZED. The initial dosage of CARDURA in hypertensive patients is 1 mg given once daily. Depending on the individual patient's standing blood pressure response (based on measurements taken at 2-6 hours postdose and 24 hours postdose), dosage may then be increased to 2 mg and thereafter if necessary to 4 mg, 8 mg and 16 mg to achieve the desired reduction in blood pressure. Increases in dose beyond 4 mg increase the likelihood of excessive postural effects including syncope, postural dizziness/vertigo, postural hypotension. At a titrated dose of 16 mg once daily the ural effects is about 12% compared to 3% for placebo. **HOW SUPPLIED**

CARDURA (doxazosin mesvlate) is available as colored tablets for oral administration. Each tablet contains doxazosin mesylate equivalent to 1 mg (white), 2 mg (yellow), 4 mg (orange) or 8 mg (green) of the active constituent,

CARDURA® TABLETS are available as 1 mg (white), 2 mg (yellow), 4 mg (orange) and 8 mg (green) scored tablets. Bottles of 100: 1 mg (NDC 0049-2750-66), 2 mg (NDC 0049-2760-66), 4 mg (NDC 0049-2770-66), 8 mg (NDC 0049-2780-66

ended Storage: Store below 86°F(30°C). CAUTION: Federal law prohibits dispensing without prescription. 65-4538-00-0

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References: 1. Australasia Multicentre Trial Group: The simultaneous assessment of four nonsteroidal antiinflammatory drugs in rheumatoid arthritis using a simple and rapid trial design. J Rheumatol 7:857-864, 1980. 2. Nasution AR: Study of the analgesic activities of ibuprofen compared with paracetarnol. Curr Med Res Opin (suppl):9-11, 1974.

Please advise patients to read and follow product labeling. Patients should not take this product if they have had a severe allergic reaction to aspirin. Appearance of the brown ADVIL tablet and caplet is a trademark of Whitehall Laboratories, N.Y., N.Y.

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