

Antihypertensive drugs and the quality of life

Antihypertensive medications can have negative effects on physical, emotional, sexual, social, and cognitive functioning. This may result in noncompliance and ineffectual long-term treatment. This randomized, double-blind study compares the side effects of captopril, methyldopa, and propranolol on 626 men with mild to moderate hypertension.

All 3 drugs had similar blood-pressure control results after 24 weeks of treatment. Patients in the captopril group were least likely to withdraw from the study because of adverse effects (8 percent) than those taking propranolol (13 percent) or methyldopa (20 percent). The captopril group fared better than the other 2 groups in terms of general well being, physical symptoms, and sexual function, and better than methyldopa with regard to cognitive function, work performance, and life satisfaction. All groups had similar scores for sleep dysfunction, visual memory, and social participation.

Croog, S.H., et al.: The effects of antihypertensive therapy on the quality of life. *N Engl J Med* 314:1657-64, 26 Jun 86

Carpal tunnel syndrome

Provocative tests for the diagnosis of carpal tunnel syndrome are performed on the premise that stress on a damaged median nerve will increase the symptoms of pain or paresthesia. The usefulness of 3 such tests was evaluated in a group of patients (67 hands) with electrodiagnostically proved carpal tunnel syndrome. A group of 50 subjects served as control.

The wrist-flexion (Phalen) test was

found to be the most sensitive and useful of the tests (sensitivity 71 percent, specificity 80 percent). The median-nerve percussion test was least sensitive (44 percent) but most specific (94 percent). The tourniquet test was least reliable of all (sensitivity 65 percent, specificity 60 percent). All patients also underwent the Semmes-Weinstein monofilament test and the two-point discrimination test. The combination of these two clinical tests currently represents the most complete and accurate diagnostic routine for carpal tunnel syndrome.

The authors conclude that the wrist-flexion and percussion tests are useful adjuncts in the clinical diagnosis of carpal tunnel syndrome. However, a negative test result does not rule out the diagnosis. The tourniquet test is not recommended for routine use.

Gellman, H., et al.: Carpal tunnel syndrome. An evaluation of the provocative diagnostic tests. *J Bone Joint Surg* 68A:735-7, Jun 86

Cervical rheumatoid arthritis

Almost half of patients with rheumatoid arthritis experience cervical involvement. The abnormalities become clinically significant in the elderly, because the degeneration can mistakenly be attributed to osteoporosis, which often occurs concurrently. The current article reviews the clinical and radiologic findings of craniovertebral abnormalities.

Only two cervical lateral projections, one in flexion and one in extension, are necessary in a routine preoperative check up. Computed tomography is recommended over conventional tomography and radiography. The anterior atlantoaxial dis-

location is the most common disorder. It is often the first and only detectable sign of cervical arthritis. Treatment is usually conservative, although patients with severe neurologic disturbances may benefit from occipitocervical fusion.

Redlund-Johnell, I.: Evaluation of craniovertebral abnormalities in rheumatoid arthritis. *Geriatric Med Today* 5:94-102, Jul 86

Chlamydial infections

Chlamydial infections have captured attention as the most prevalent sexually transmitted diseases in the U.S. The obligate intracellular parasites cause conjunctivitis and pneumonia in infants, and urogenital and ocular infections in adults.

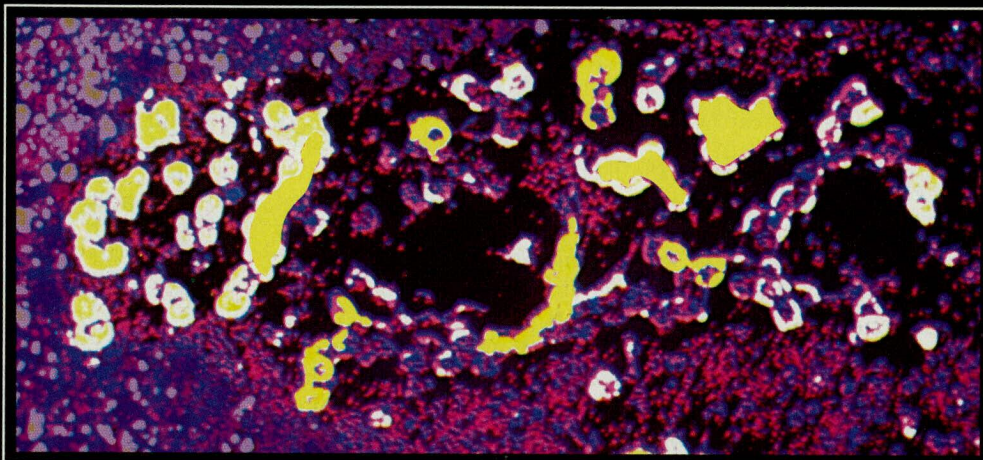
This article describes routes of transmission, current diagnostic criteria, newly available diagnostic tests, and treatment recommendations for specific infections. Tetracyclines are the favored drugs for treatment, although erythromycin is preferred for pregnant women and neonates with conjunctivitis.

Pruessner, H.T., Hansel, N.K., and Griffiths, M.: Diagnosis and treatment of chlamydial infections. *Am Fam Physician* 34:81-92, Jul 86

Head and neck cancer

Head and neck cancer is four times more common in men than in women, and usually appears in later life. However, this pattern may shift because of the increasing number of female tobacco and alcohol users, as well as the growing popularity of snuff among school-aged children. The basic principles of diagnosis and treatment are discussed. It is interesting that the sites of synchronous primary lesions often are associated

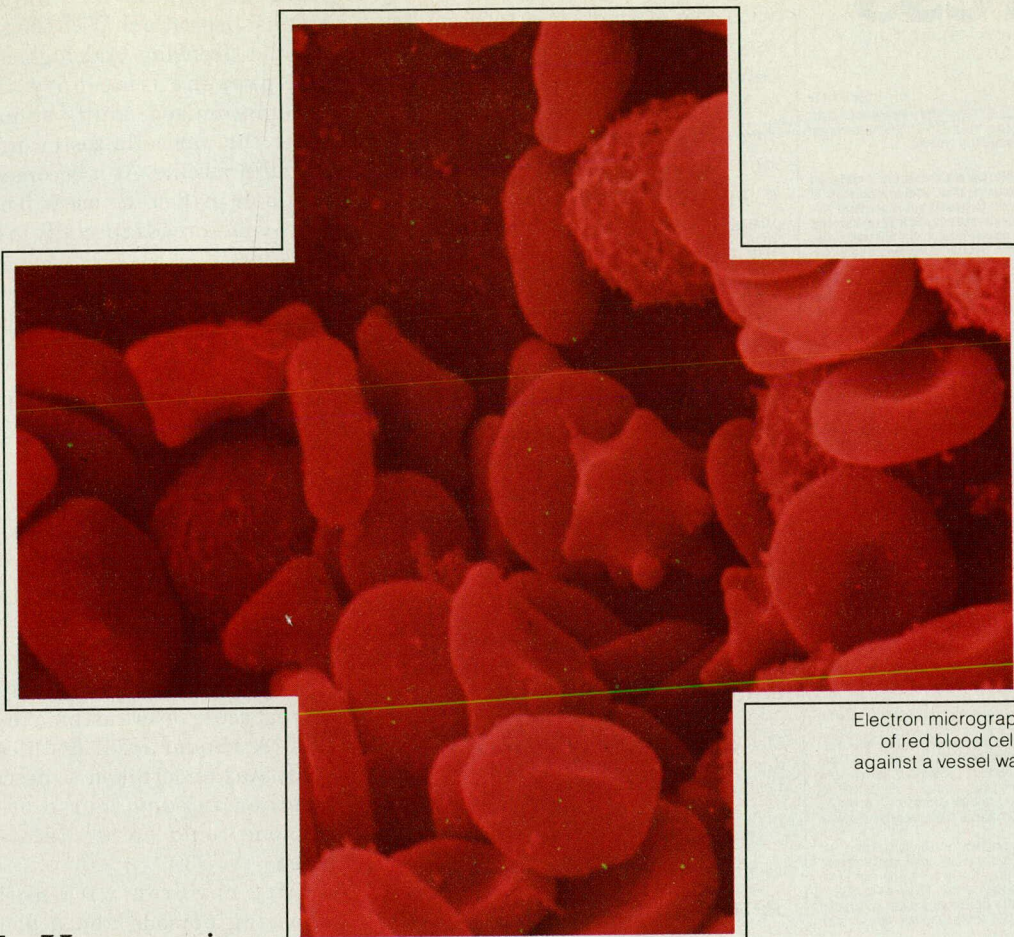
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Electron micrograph of LDL molecules on cell surface

When you consider Coronary Heart Disease (CHD) risk reduction,

The lipid effects
of thiazide diuretics may
negate their positive
antihypertensive effect.



Electron micrograph
of red blood cells
against a vessel wall.

In Hypertension,
**Initiate Positive Action
with Minipress®**
(prazosin HCl)

**First-line control of
hypertension without the
negatives of diuretics**

Minipress and diuretics both deliver effective first-line blood pressure control. But unlike thiazide diuretics, Minipress does not compromise lipid metabolism¹⁻⁴; additionally, potassium balance⁵ and diabetes control are not compromised.^{6,7} And sexual dysfunction is seldom a problem with Minipress.⁸ Impotence has been reported but in less than 1% of patients on Minipress.

With Minipress, most common adverse reactions, generally mild and transient, are: dizziness, headache, drowsiness, palpitations, and nausea. Syncope has been reported in about 0.15% of patients at the recommended 1 mg initial dose. Fluid retention may occur.

Minipress.
**The positive first-line
approach to hypertension.
Instead of diuretics.**

	Minipress	Thiazide Diuretics
Controls Hypertension	+	+
No adverse effect on Blood Lipids	+ ¹⁻³	— ⁴
No adverse effect on Potassium Balance	+ ⁵	— ⁹
Does not compromise Glucose Tolerance	+ ^{6,7}	— ⁶
Rarely compromises Sexual Function	+ ⁸	— ¹⁰

+ = Yes — = No

Minipress®
(prazosin HCl) Capsules 1mg, 2mg, 5mg

Please see MINIPRESS® (prazosin HCl) brief summary on adjacent page.

Minipress® (prazosin HCl) Capsules 1 mg, 2 mg, 5 mg

Brief Summary
MINIPRESS (prazosin hydrochloride) CAPSULES
INDICATIONS AND USAGE: MINIPRESS (prazosin hydrochloride) is indicated in the treatment of hypertension. It is mild to moderate in activity and can be used as the initial agent or in a general treatment program in conjunction with a diuretic and/or other antihypertensive drugs as needed.

CONTRAINDICATIONS: None known.
WARNINGS: MINIPRESS may cause syncope with sudden loss of consciousness. In most cases this is believed to be due to an excessive postural hypotensive effect, although occasionally the syncope episode has been preceded by a bout of severe tachycardia with heart rates of 120-160 beats per minute. Syncope episodes have usually occurred within 30 to 90 minutes of the initial dose of the drug; occasionally they have been reported in association with rapid dosage increases or the introduction of another antihypertensive drug into the regimen of a patient taking high doses of MINIPRESS. The incidence of syncope episodes is approximately 1% in patients given an initial dose of 2 mg or greater. Clinical trials conducted during the investigational phase of this drug suggest that syncope episodes can be minimized by limiting the initial dose of the drug to 1 mg, by subsequently increasing the dosage slowly, and by introducing any additional antihypertensive drugs into the patient's regimen with caution (see DOSAGE AND ADMINISTRATION). Hypotension may develop in patients given MINIPRESS who are also receiving a beta-blocker such as propranolol.

If syncope occurs, the patient should be placed in the recumbent position and treated supportively as necessary. This adverse effect is self-limiting and in most cases does not recur after the initial period of therapy or during subsequent dose titration. The patient should also be cautioned to avoid situations where injury could result should syncope occur during the initiation of MINIPRESS therapy.

PRECAUTIONS: Information for Patients: Dizziness or drowsiness may occur after the first dose of this medicine. Avoid driving or performing hazardous tasks for the first 24 hours after taking this medicine or when the dose is increased. Dizziness, lightheadedness or fainting may occur, especially when rising from a lying or sitting position. Getting up slowly may help lessen the problem. These effects may also occur if you drink alcohol, stand for long periods of time, exercise, or if the weather is hot. While taking MINIPRESS, be careful in the amount of alcohol you drink. Also, use extra care during exercise or hot weather, or if standing for long periods. Check with your physician if you have any questions.

Drug Interactions: MINIPRESS has been administered without any adverse drug interaction in limited clinical experience to date with the following: (1) cardiac glycosides—digitalis and digoxin; (2) hypoglycemics—insulin, chlorpropamide, phenformin, tolazamide, and tolbutamide; (3) tranquilizers and sedatives—chlorazepate, diazepam, and phenobarbital; (4) antiulcer—alopurinol, cimetidine, and ranitidine; (5) antiarrhythmics—procainamide, propranolol (see WARNINGS however), and quinidine; and (6) analgesics, antipyretics and anti-inflammatories—propoxyphene, aspirin, indomethacin, and phenylbutazone.

Addition of a diuretic or other antihypertensive agent to MINIPRESS has been shown to cause an additive hypotensive effect.

Drug/Laboratory Test Interactions: False positive results may occur in screening tests for pheochromocytoma in patients who are being treated with prazosin. If an elevated VMA is found, prazosin should be discontinued and the patient retested after a month.

Laboratory Tests: In clinical studies in which lipid profiles were followed, there were generally no adverse changes noted between pre- and post-treatment lipid levels.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No carcinogenic potential was demonstrated in an 18 month study in rats with MINIPRESS (prazosin hydrochloride) at dose levels more than 225 times the usual maximum recommended human dose of 20 mg per day. MINIPRESS was not mutagenic in *in vivo* genetic toxicology studies. In a fertility and general reproductive performance study in rats, both males and females, treated with 75 mg/kg (225 times the usual maximum recommended human dose), demonstrated decreased fertility while those treated with 25 mg/kg (75 times the usual maximum recommended human dose) did not.

In chronic studies (one year or more) of MINIPRESS in rats and dogs, testicular changes consisting of atrophy and necrosis occurred at 25 mg/kg/day (75 times the usual maximum recommended human dose). No testicular changes were seen in rats or dogs at 10 mg/kg/day (30 times the usual maximum recommended human dose). In view of the testicular changes observed in animals, 105 patients on long term MINIPRESS therapy were monitored for 17-ketosteroid excretion and no changes indicating a drug effect were observed. In addition, 27 males on MINIPRESS for up to 51 months did not have changes in sperm morphology suggestive of drug effect.

Usage in Pregnancy: Pregnancy Category C. There are no adequate and well controlled studies which establish the safety of MINIPRESS (prazosin hydrochloride) in pregnant women. MINIPRESS should be used during pregnancy only if the potential benefit justifies the potential risk to the mother and fetus.

Nursing Mothers: MINIPRESS has been shown to be excreted in small amounts in human milk. Caution should be exercised when MINIPRESS is administered to a nursing woman.

Usage in Children: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: Clinical trials were conducted on more than 900 patients. During these trials and subsequent marketing experience, the most frequent reactions associated with MINIPRESS therapy are dizziness, 5.3%, headache, 7.8%, drowsiness, 7.6%, lack of energy, 6.9%, weakness, 6.5%, palpitations, 5.3%, and nausea, 4.9%. In most instances side effects have disappeared with continued therapy or have been tolerated with no decrease in dose of drug.

Less frequent adverse reactions which are reported to occur in 1-4% of patients are: Gastrointestinal: vomiting, diarrhea, constipation; Cardiovascular: edema, orthostatic hypotension, dyspnea, syncope; Central Nervous System: vertigo, depression, nervousness; Dermatologic: rash; Genitourinary: urinary frequency; EENT: blurred vision, reddened sclera, epistaxis, dry mouth, nasal congestion. In addition, fewer than 1% of patients have reported the following (in some instances, exact causal relationships have not been established):

Gastrointestinal: abdominal discomfort and/or pain, liver function abnormalities, pancreatitis; Cardiovascular: tachycardia; Central Nervous System: paresthesia, hallucinations; Dermatologic: pruritus, alopecia, lichen planus; Genitourinary: incontinence, impotence, priapism; EENT: tinnitus; Other: diaphoresis, fever.

Single reports of pigmentary mottling and serous retinopathy, and a few reports of cataract development or disappearance have been reported.

OVERDOSAGE: Should overdosage lead to hypotension, support of the cardiovascular system is of first importance. Restoration of blood pressure and normalization of heart rate may be accomplished by keeping the patient in the supine position. If this measure is inadequate, shock should first be treated with volume expanders. If necessary, vasopressors should then be used. Renal function should be monitored and supported as needed. Laboratory data indicate MINIPRESS is not dialyzable because it is protein bound.

DOSAGE AND ADMINISTRATION: The dose of MINIPRESS should be adjusted according to individual blood pressure response.

Initial Dose: 1 mg two or three times a day.

Maintenance Dose: Dosage may be slowly increased to a total daily dose of 20 mg given in divided doses. The therapeutic dosages most commonly employed have ranged from 6 mg to 15 mg daily given in divided doses. Doses higher than 20 mg usually do not increase efficacy; however a few patients may benefit from further increases up to a daily dose of 40 mg given in divided doses. After initial titration some patients can be maintained adequately on a twice daily dosage regimen.

Use With Other Drugs: When adding a diuretic or other antihypertensive agent, the dose of MINIPRESS should be reduced to 1 mg or 2 mg three times a day and retitration then carried out. Revised April 1986

References: 1. Leren P, Helgeland A, Hjermann I, et al: The Oslo Study: CHD risk factors, socioeconomic influences, and intervention. *Am Heart J* 106:1200-1206, 1983. 2. Neusy A-J, Lowenstein J: Effects of prazosin, atenolol, and thiazide diuretic on plasma lipids in patients with essential hypertension. *Am J Med* 80(suppl 2A): 94-99, 1986. 3. Roy J, Jallard J: Effects of two antihypertensive agents on lipids, lipoproteins, and apoproteins A. Comparison of prazosin and atenolol. *Am J Med* 80 (suppl 2A) 100-103, 1986. 4. Ames RP, Hill P: Antihypertensive therapy and the risk of coronary heart disease. *J Cardiovasc Pharmacol* 4(suppl 2): 206-212, 1982. 5. Pitts NE: The clinical evaluation of prazosin, a new antihypertensive agent. In *Prazosin Clinical Symposium Proceedings*. Published as a special report by *Postgraduate Medicine, Custom Communications*, New York, McGraw-Hill Co., 1975, pp 117-127. 6. Ames RP: Negative effects of diuretic drugs on metabolic risk factors for coronary heart disease: Possible alternative drug therapies. *Br Med J* 51: 632-638, 1983. 7. Leichter SB, Baumgardner B: Effects of chronic prazosin therapy on intermediary metabolism in diabetic patients. *J Cardiovasc Med* (special suppl): 36-42, 1981. 8. Okun R: Effectiveness of prazosin as initial antihypertensive therapy. *Am J Cardiol* 51 (special suppl): 644-650, 1983. 9. Sandor FF, Pickens PT, Crallan J: Variations of plasma potassium concentrations during long-term treatment of hypertension with diuretics without potassium supplements. *Br Med J* 284: 711-715, 1982. 10. Adverse reactions to bendrofluzide and propranolol for the treatment of mild hypertension: Report of Medical Research Council Working Party on mild to moderate hypertension. *Lancet* pp 539-543, September 12, 1981.

with the patient's habit—lung and larynx with smoking, oral cavity with use of smokeless tobacco, and esophagus and oropharynx with alcohol abuse.

Nonocult squamous cell cancer presents with such symptoms as hoarseness, obstructed breathing, dysphagia, bloody sputum, and weight loss. It is important to histologically differentiate verrucous carcinoma from the more aggressive squamous cell carcinoma. Excising a metastatic lesion in a cervical node increases the incidence of distant metastasis and local recurrence; thus, one should assume that all asymmetric cervical nodes are metastatic and refrain from open biopsy until a thorough head and neck evaluation (described in the article) proves otherwise. Monthly follow-up after treatment is essential because of the great likelihood of recurrent disease, metastasis, or a second metachronous primary cancer.

McGuirt, W.F.: Cancer of the upper aerodigestive tract. Basic principles and concepts. *Postgrad Med* 80:77-96, Jul 86

Adult immunization

Adult immunization is more challenging than across-the-board childhood vaccination. Adults may have received ineffectual vaccination during childhood, or may have fallen behind on their immunization schedule. This article reviews the protocol for rubella, measles, poliomyelitis, tetanus, diphtheria, influenza, pneumonia, hepatitis B, rabies, and varicella-zoster.

For example, almost 20 percent of young adults born in the 1960s or earlier are unprotected against rubella and measles. Americans over 18 years of age do not need the poliovirus vaccine unless traveling to endemic countries. All adults need boosters of the tetanus-diphtheria (but not pertussis) toxoid at 10-year intervals. Everyone over the age of 65 as well as persons of any age with cardiac or pulmonary disease, anemia, immunodeficiency problem, or metabolic disorder, are candidates for influenza and pneumonia vaccinations. High-risk individuals, in-

cluding homosexuals and health care workers, should be immunized against hepatitis B. With the current limited licensing and high cost, at the present time only immunocompromised adults should receive the varicella-zoster immune globulin vaccine. As it becomes more available in the U.S., use will become more widespread especially to health workers.

Immunization travel requirements are also discussed in the article.

Fedson, D.S.: Adult immunization. Protocols and problems. *Hospital Practice* 21:143-58, 15 Jul 86

Steroid use in home treatment of acute asthma in children

Corticosteroids are commonly used to treat acute severe asthma in hospitals. A randomized, double-blind study was undertaken to determine whether a 3-day course of prednisolone could hasten recovery at home.

Fifty children with an acute wheezing episode and a peak expiratory flow rate (PEFR) of 15-80 percent of expected value were admitted to the study. Each child received one dose of a nebulized bronchodilator and a 3-day supply of prednisolone or placebo (2 mg/kg. on day 1, 1 mg/kg. on day 2, and 0.5 mg/kg. on day 3). All participants recorded PEFRs in the morning and evening until their return on day 4. Six of the patients' diary cards were incomplete or incorrect, thus the results of a total of 44 patients were used for analysis.

Both groups were found to have improved significantly at the end of treatment. However, improvements in PEFR were significantly greater in the steroid than in the placebo group. The authors conclude that early treatment with corticosteroids would prevent serious deterioration, speed recovery, and make a return to the hospital less likely.

Deshpande, A., and McKenzie, S.A.: Short course of steroids in home treatment of children with acute asthma. *Br Med J* 293:169-71, 19 Jul 86

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