Communications

Aseptic Necrosis of Bone and Chronic Alcoholism

Leon Rosenkranz, MD
Brooklyn, New York

The most common causes of aseptic necrosis of bone include trauma, decompression sickness, sickle cell anemia, Legg-Perthes disease, and the long-term use of steroids, particularly by patients with renal disease and recipients of organ transplants.[1] Osteonecrosis of bone associated with alcoholism has long been recognized, but there have been few recent studies of this uncommon disease. A patient with typical clinical features was treated at Coney Island Hospital in the past year, prompting a review of newer methods of diagnosis and treatment of this illness.

From the Departments of Medicine and Community Medicine, Coney Island Hospital, and the Department of Medicine, Downstate Medical Center, Brooklyn, New York. Requests for reprints should be addressed to Dr. Leon Rosenkranz, 395 South End Avenue, New York, NY 10280.

Case Report

A 40-year-old white man, alcoholic since the age of 20 years, presented to the clinic with severe right hip pain that had begun one year before. He was unable to place weight on the hip without pain, and he walked with great difficulty. The left hip was also painful. The patient had been admitted twice previously for pancreatitis. The physical examination showed limited range of motion of the right hip in all directions. The opposite hip was less symptomatic. Laboratory data, including liver function tests, rheumatoid factor, antinuclear antibody, and a serum cholesterol level, were normal. X-ray examination revealed dense sclerosis of both femoral heads with preservation of the joint spaces (Figure 1). These changes were consistent with aseptic necrosis. A bone scan showed increased uptake in both hips; there were no other abnormal joints. After a trial of medical therapy

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Figure 1. Roentgenogram of the pelvis showing bilateral aseptic necrosis of the hips

with anti-inflammatory agents failed to alleviate the symptoms, the patient underwent total hip replacement on the right side. One year after surgery, the patient was pain-free and able to bear weight on the right hip. Symptoms were increased on the opposite side and further surgery is being considered.

Discussion

Osteonecrosis of bone is an uncommon complication of alcoholism. It was detected in 0.25 percent of 800 patients who had x-ray examination of the femur performed routinely on admission to an alcohol treatment unit.[2] The clinical features, roentgenograms, and histology are no different from other nontraumatic causes of aseptic necrosis. The femoral head is involved in the vast majority of cases. Bilateral involvement, as in this patient, has been observed in 25 to 75 percent of the cases, depending on the study cited.[3] A majority of the patients are men, usually aged under 50 years, and many have a history of pancreatitis.[4]

Without a high index of suspicion, the primary physician caring for alcoholic patients will find it difficult to make an early diagnosis of aseptic necrosis. Early symptoms of hip pain are nonspecific. The onset may be sudden or gradual, and the pain may be referred to the knee.[5] Since osteonecrosis is such an infrequent complication of alcoholism, it is likely that some patients with early disease are misdiagnosed as having osteoarthritis. However, anti-inflammatory drugs have little effect, and their use will only delay the appropriate surgical referral.

X-ray films of the hip taken early in the disease process may be normal, although a radionuclide bone scan will be positive and a bone biopsy will show changes typical of aseptic necrosis.[6] The earliest roentgen abnormalities are wedge-shaped densities, which represent areas of microinfarction with new bone formation. A subchondral lucency representing a small fracture zone is subsequently seen. With disease progression, the films depict a characteristic dense sclerosis. If the condition is

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SINEQUAN® (doxepin HCl)

Reference: 1. Barranco SF, Thrash ML, Hackett E, Frey J, et al (Pfizer Pharmaceuticals, Pfizer Inc., New York, N.Y.): Early onset of response to doxepin treatment. *J Clin Psychiatry* 40:265-269, 1979.

BRIEF SUMMARY
SINEQUAN® (doxepin HCl) Capsules/Oral Concentrate
Contraindications. SINEQUAN is contraindicated in individuals who have shown hypersensitivity to the drug. Possibility of cross sensitivity with other dibenzoxepines should be kept in mind.

SINEQUAN is contraindicated in patients with glaucoma or a tendency to urinary retention. These disorders should be ruled out, particularly in older patients.

Warnings. The once-a-day dosage regimen of SINEQUAN in patients with intercurrent illness or patients taking other medications should be carefully adjusted. This is especially important in patients receiving other medications with anticholinergic effects.

Usage in Geriatrics: The use of SINEQUAN on a once-a-day dosage regimen in geriatric patients should be adjusted carefully based on the patient's condition.

Usage in Pregnancy: Reproduction studies have been performed in rats, rabbits, monkeys and dogs and there was no evidence of harm to the animal fetus. The relevance to humans is not known. Since there is no experience in pregnant women who have received this drug, safety in pregnancy has not been established. There are no data with respect to the secretion of the drug in human milk and its effect on the nursing infant.

Usage in Children: The use of SINEQUAN in children under 12 years of age is not recommended because safe conditions for its use have not been established.

MAO Inhibitors: Serious side effects and even death have been reported following the concomitant use of certain drugs with MAO inhibitors. Therefore, MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with SINEQUAN. The exact length of time may vary and is dependent upon the particular MAO inhibitor being used, the length of time it has been administered, and the dosage involved.

Usage with Alcohol: It should be borne in mind that alcohol ingestion may increase the danger inherent in any intentional or unintentional SINEQUAN overdosage. This is especially important in patients who may use alcohol excessively.

Precautions. Since drowsiness may occur with the use of this drug, patients should be warned of the possibility and cautioned against driving a car or operating dangerous machinery while taking the drug. Patients should also be cautioned that their response to alcohol may be potentiated.

Since suicide is an inherent risk in any depressed patient and may remain so until significant improvement has occurred, patients should be closely supervised during the early course of therapy. Prescriptions should be written for the smallest feasible amount.

Should increased symptoms of psychosis or shift to manic symptomatology occur, it may be necessary to reduce dosage or add a major tranquilizer to the dosage regimen.

Adverse Reactions. NOTE: Some of the adverse reactions noted below have not been specifically reported with SINEQUAN use. However, due to the close pharmacological similarities among the tricyclics, the reactions should be considered when prescribing SINEQUAN.

Anticholinergic Effects: Dry mouth, blurred vision, constipation, and urinary retention have been reported. If they do not subside with continued therapy, or become severe, it may be necessary to reduce the dosage.

Central Nervous System Effects: Drowsiness is the most commonly noticed side effect. This tends to disappear as therapy is continued. Other infrequently reported CNS side effects are confusion, disorientation, hallucinations, numbness, paresthesias, ataxia, and extrapyramidal symptoms and seizures.

Cardiovascular: Cardiovascular effects including hypotension and tachycardia have been reported occasionally.

Allergic: Skin rash, edema, photosensitization, and pruritus have occasionally occurred.

Hematologic: Eosinophilia has been reported in a few patients. There have been occasional reports of bone marrow depression manifesting as agranulocytosis, leukopenia, thrombocytopenia, and purpura.

Gastrointestinal: Nausea, vomiting, indigestion, taste disturbances, diarrhea, anorexia, and aphthous stomatitis have been reported. (See anticholinergic effects.)

Endocrine: Raised or lowered libido, testicular swelling, gynecomastia in males, enlargement of breasts and galactorrhea in the female, raising or lowering of blood sugar levels have been reported with tricyclic administration.

Other: Dizziness, tinnitus, weight gain, sweating, chills, fatigue, weakness, flushing, jaundice, alopecia, and headache have been occasionally observed as adverse effects.

Dosage and Administration. For most patients with illness of mild to moderate severity, a starting daily dose of 75 mg is recommended. Dosage may subsequently be increased or decreased at appropriate intervals and according to individual response. The usual optimum dose range is 75 mg/day to 150 mg/day.

In more severely ill patients higher doses may be required with subsequent gradual increase to 300 mg/day if necessary. Additional therapeutic effect is rarely to be obtained by exceeding a dose of 300 mg/day.

In patients with very mild symptomatology or emotional symptoms accompanying organic disease, lower doses may suffice. Some of these patients have been controlled on doses as low as 25-50 mg/day.

The total daily dosage of SINEQUAN may be given on a divided or once-a-day dosage schedule. If the once-a-day schedule is employed the maximum recommended dose is 150 mg/day. This dose may be given at bedtime. **The 150 mg capsule strength is intended for maintenance therapy only and is not recommended for initiation of treatment.**

Anti-anxiety effect is apparent before the antidepressant effect. Optimal antidepressant effect may not be evident for two to three weeks.

Overdosage.
A. Signs and Symptoms
1. Mild: Drowsiness, stupor, blurred vision, excessive dryness of mouth.
2. Severe: Respiratory depression, hypotension, coma, convulsions, cardiac arrhythmias and tachycardias.

Also: urinary retention (bladder atony), decreased gastrointestinal motility (paralytic ileus), hyperthermia (or hypothermia), hypertension, dilated pupils, hyperactive reflexes.

B. Management and Treatment
1. Mild: Observation and supportive therapy is all that is usually necessary.
2. Severe: Medical management of severe SINEQUAN overdosage consists of aggressive supportive therapy. If the patient is conscious, gastric lavage, with appropriate precautions to prevent pulmonary aspiration, should be performed even though SINEQUAN is rapidly absorbed. The use of activated charcoal has been recommended, as has been continuous gastric lavage with saline for 24 hours or more. An adequate airway should be established in comatose patients and assisted ventilation used if necessary. EKG monitoring may be required for several days, since relapse after apparent recovery has been reported. Arrhythmias should be treated with the appropriate antiarrhythmic agent. It has been reported that many of the cardiovascular and CNS symptoms of tricyclic antidepressant poisoning in adults may be reversed by the slow intravenous administration of 1 mg to 3 mg of physostigmine salicylate. Because physostigmine is rapidly metabolized, the dosage should be repeated as required. Convulsions may respond to standard anticonvulsant therapy, however, barbiturates may potentiate any respiratory depression. Dialysis and forced diuresis generally are not of value in the management of overdosage due to high tissue and protein binding of SINEQUAN.

More detailed professional information available on request.

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ten years. The remaining three clinics were large, having 12 to 16 physicians, and although they had been in operation for more than ten years, many physicians had been with their clinics for shorter periods of time. Because of the variation in clinic size and volume of telephone calls, data collection took from one to six weeks and occurred over an eight-week period in the summer of 1980. Each clinic reported between 100 to 160 patient visits per physician per week during that time.

Results

The average of after-hours telephone calls was 1.5 calls per night for each physician in the clinic group. The distribution of these calls throughout the week was relatively constant at 10 to 11 percent of calls each week night, with slightly more on Monday and fewer on Wednesday, and 48 percent of all calls coming on the weekend, 22 percent on Saturday, and 26 percent on Sunday. Approximately 26 percent of all after-hours calls were made between 7 AM and 5 PM; 11 percent came after midnight. The majority of calls, almost 64 percent, were received between 5 PM and midnight.

A calculation comparable to data from an academic setting would be the number of office visits per after-hours call, which may be a more meaningful number than just the number of registered patients divided by the number of calls, since it would relate more closely to the amount of medical care required by a population. In this study, using the lower end of the range of office visits, there were at least ten clinic visits for each after-hours call. Bergman and Rosenblatt,[2] who reported their call frequency to be "comparable" to that of Curtis and Talbot, recorded 4.5 and 6.7 office visits per after-hours call in 1973 and 1978, respectively.

The calls concerned adults 72 percent and children 28 percent of the time. Of all calls, 66 percent came directly from the patient, 17 percent from the hospital, 10 percent from the emergency room, 4 percent from nursing homes, and 3 percent from pharmacies or miscellaneous other sources. Medi-

Table 1. Comparative Studies of After-Hours Telephone Calls

	Mayer et al	Bergman and Rosenblatt[2]		Curtis and Talbot[1]
		1973	1978	
No. office visits per after-hours call	10	4.5	6.7	—
No. calls annually per 1,000 registered patients		708*	348*	474
		Percent Response		
Calls on weekdays	52	43	42	50
Calls on weekends	48	47	58	49
"Late" calls	11	14	9	14
Trauma	14	7	11	≈22
Obstetrics	4.1	6	10	—
Psychosocial	5.8	—	—	6
Involving children	28(≤12 yr)	—	—	32(≤14 yr)
Known to physician	46	30	23	—
Necessary	40	50	46	20
Reasonable	50	32	31	60
Unnecessary	10	18	23	20
Treated over the telephone	77	73	68	72
To emergency room or seen by physician	17	23	28	28 (includes hospitalized)
Hospitalized	5.5	3.8	3.9	

*Average of the two studies is 528

cal problems constituted 75 percent of all calls, trauma 14 percent, obstetrics 4 percent, psychosocial matters 6 percent, and prescription refills 1 percent. One half of the calls were felt to be reasonable, 40 percent necessary, and 10 percent unnecessary. Advice alone was sufficient to handle 63 percent of all calls, while calling in a prescription took up an additional 14 percent. Hospitalization was required for 6 percent of the callers, a trip to the emergency room for 13 percent, and a physician visit for 4 percent. About 46 percent of all patients were known to the physician receiving the call, although this was predictably higher for the small clinics (75 percent) than for the larger clinics (22 percent).

Discussion

Table 1 summarizes data from this study in comparison with that reported by the previously mentioned studies from residency programs. This comparison shows the patterns of utilization to be quite similar outside the sheer number of calls per patient visit. Distribution of calls throughout the night and over the week is almost identical. The proportion of different problem categories, as well as of patient age, is also very similar.

The physician-patient familiarity demonstrates an understandable difference that is present only for small family practice clinics, as the large clinics had familiarity scores comparable to those of the residents. The subjective evaluation of appropri-

ateness of the calls differs somewhat, but may be dependent upon a more stable population and greater familiarity than is present in the academic setting.

The care resulting in response to the after-hours calls shows private family physicians handling more problems by telephone and sending patients to the emergency room or seeing them personally less often. Again, however, the large clinic group in this study performed more closely to the residents, while the small clinic group created most of the savings in utilization.

Bergman and Rosenblatt conclude that "changes in after-hours utilization reflect practice maturation," but that "after-hours utilization bears a stable relationship to practice size and volume." Thus, they feel "further studies in other settings are needed." These results are useful as the first descriptive study of after-hours telephone utilization in private family practice in the United States.

This study supports the hypothesis of constancy of utilization in most areas, although the frequency of calls per patient visit is lower in private practice. Physician-patient familiarity is greatest in small, private family practice clinics and may result in different utilization of after-hours services. Before concluding that the patterns of after-hours utilization can be generalized to the private practice setting, further studies should be done outside academic centers with a view toward the effect of the physician-patient relationship on that utilization.

References

1. Curtis P, Talbot A: The after-hours call in family practice. J Fam Pract 9:901, 1979
2. Bergman JJ, Rosenblatt RA: After-hours calls: A five-year longitudinal study in a family practice group. J Fam Pract 15:101, 1982

Social Identities of Medical Students Oriented Toward Careers in Family Medicine

David R. Cole, EdD, Thomas G. Fox, PhD, and Joseph A. Lieberman III, MD
New Brunswick and Piscataway, New Jersey

Underlying the design of this study is the assumption that medical students choosing to specialize in family medicine share a common pattern of social characteristics. Gouldner's work[1] on latent and manifest social identities provides a theoretical basis for isolating these characteristics and determining whether they form a pattern that can distinguish family medicine students from their colleagues choosing other specialties.

From the Department of Family Medicine, University of Medicine and Dentistry of New Jersey, Rutgers Medical School, New Brunswick, and Department of Family Medicine and the Office of the Associate Dean of Administration and Planning, University of Medicine and Dentistry of New Jersey, Piscataway, New Jersey. Requests for reprints should be addressed to Dr. David R. Cole, Department of Family Medicine, University of Medicine and Dentistry of New Jersey, Rutgers Medical School, Academic Health Science Center, CN 19, New Brunswick, NJ 08903.

Methods

This study identifies the manifest role as that of being a medical student. The manifest identities

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