with the pseudogout syndrome. Am J Roentgen 109:587–605, 1970
3. Moskowitz RW, Harris BK, Schwartz A, et al: Chronic synovitis as a manifestation of calcium crystal deposition disease. Arthritis Rheum 14:109–116, 1971
4. Utsinger PD, Resnick D, Zweifler NJ: Wrist arthropathy in calcium pyrophosphate dihydrate deposition disease. Arthritis Rheum 18:485–491, 1975
5. Menkes CJ, Simon F, Delrieu F, et al: Destructive arthropathy in chondrocalcinosis articularis. Arthritis Rheum 19:329–348, 1976
6. Reginato AJ, Valenzuela F, Martinez V: Polyarticular and familial chondrocalcinosis. Arthritis Rheum 13:197–213, 1970
7. McCarty DJ Jr, Kohn NN, Faires JS: The significance of calcium phosphate crystals in the synovial fluid of arthritis patients. The "pseudogout syndrome." I. Clinical aspects. Ann Intern Med 56:711–737, 1962
8. McCarty DJ: Calcium pyrophosphate dihydrate crystal deposition disease 1975. Arthritis Rheum 19:275–285, 1976
9. Gerster JC, Baud CA, Lagier R, et al: Tendon calcifications in chondrocalcinosis: a clinical, radiologic, histologic, and crystallographic study. Arthritis Rheum 20:717–722, 1977
10. Trentham DE, Hamm RL, Masi AT: Wrist arthrography: review and comparison of normals, rheumatoid arthritis and gout patients. Sem Arthritis Rheum 5:105–120, 1975

Radiographic Arthritis Survey

To the Editor:

Radiography plays a critical role in the evaluation of the patient with an arthritic disorder; it may provide the clue to the diagnosis in the patient with early disease or be of value in one with advanced disease in whom the change in the radiographs is an index of the efficacy of drug treatment. It is necessary to radiograph multiple joints since the *distribution* of findings is often the key to the correct differential diagnosis. The radiographic search for abnormality is, however, often haphazard and expensive; nonessential radiographs expose the patient to excessive radiation.

We have formulated a "Radiographic Arthritic Survey" (1) that provides abundant diagnostic information yet takes into account the need to control the rising cost of medical care and to reduce radiation exposure. The survey consists of: 1) posteroanterior and oblique views of both hands, including the wrists; 2) anteroposterior and lateral views of both feet, including the ankles; 3) posteroanterior *standing* views of both knees; 4) voluntary lateral *flexion* view of the cervical spine; 5) posteroanterior view of the pelvis; 6) posteroanterior and lateral views of the chest.

Radiography can proceed rapidly and efficiently once the patient is in the x-ray room; the time taken to complete the examination is considerably less than if the patient returned on six different occasions. We therefore charge a fee that is 60% of the sum of the expected individual charges.

We suggest that the Radiographic Arthritis Survey is a practical, efficient, and economical tool which, in our experience of over 3,000 cases, has provided sufficient information to allow formulation of a differential diagnosis and assessment of disease severity.

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REFERENCE

1. Mink JH, Gold RH, Bluestone R: Radiographic Arthritis Survey. Submitted for publication

Reversal of Azotemia in Lupus Nephritis by Megadose Corticosteroid Therapy

To the Editor:

Extreme deterioration of renal function in systemic lupus erythematosus is almost always irreversible and leads to death or maintenance hemodialysis. The following case is reported because megadoses of dexamethasone (260 mg daily) were associated with dramatic restoration of renal function and resolution of parenchymal lung disease when death seemed imminent. This therapeutic approach was suggested by Cathcart and coworkers (1); in one of their patients renal deterioration was almost as severe as that in the patient reported here.

Since 1968 a 39-year-old Chinese woman had had five psychotic episodes, keratoconjunctivitis sicca, excessive hair loss, recurrent oral ulcers, polyarthralgia and positive reactions to tests for antinuclear antibodies and rheumatoid factor. In November 1975 acute hemolytic anemia appeared, together with proteinuria and microhematuria. By January 1976 serum creatinine had risen to 1.8 mg/100 ml and creatinine clearance was 40 ml/minute; LF cell preparations were now positive. Renal biopsy in April 1976 showed diffuse pro-

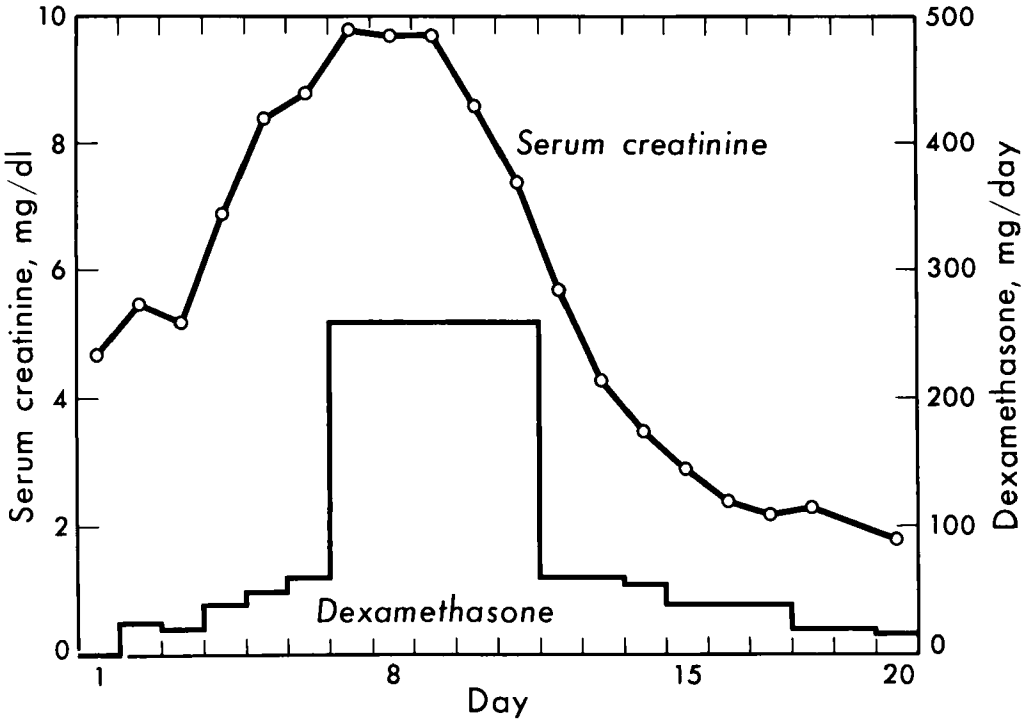

Fig. 1. *Fall in serum creatinine level with megadose dexamethasone therapy in lupus nephritis.*

liferative glomerular disease, crescent formation, hyalinization of several glomeruli, and prominent interstitial infiltrate. Corticosteroid therapy was withheld because of the psychiatric history, and her condition (including creatinine levels) remained stable until mid-July, when a lupus crisis developed.

On July 8 her serum creatinine level was 2.0 mg/100 ml and was 4.8 mg/100 ml on July 19, when she was admitted to the hospital. Despite large doses of dexamethasone given on days 2 to 6, the creatinine continued to rise, and her early death from a combination of uremia and severe lupus lung disease seemed virtually certain. Megadoses of dexamethasone were given intravenously over the next 5 days, and the serum creatinine gradually fell (Figure 1); between days 70 and 100, the creatinine level fluctuated between 1.0 and 1.3 mg/100 ml, and the urine became completely free of granular casts and protein. The patient died from a bleeding duodenal ulcer on day 120, and permission for autopsy was refused.

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REFERENCE

1. Cathcart ES, Idelson BA, Scheinberg MA, Couser WG: Beneficial effects of methylprednisolone "pulse" therapy in diffuse proliferative lupus nephritis. Lancet 1:163–166, 1976

Systemic Lupus Erythematosus and Klinefelter's Syndrome

To the Editor:

The interest of the association of Klinefelter's syndrome and systemic lupus erythematosus is stressed in the report by Stern and his coworkers (1). We report herein two further cases of this association totaling, as far as we can tell, 12 such cases (1–6). Of particular interest is the fact that one of our patients as well as one reported by Ortiz-Neu and Le Roy (2) had diphenylhydantoin-induced lupus.

Case 1. A 25-year-old man was first seen by us in September 1975 with a 3-year history of intermittent fever, pleuritic pain, episodic hair loss, arthritis, and anemia that required several blood transfusions. He had eunuchoid habitus, frontal hair shortening, synovitis of the metacarpophalangeal joints, elbows and knees, bilateral knee effusion, hepatosplenomegaly, absent pubic and axillary hair, and small testes. Laboratory findings