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COVER LEGEND

Enzootic hematuria of cattle occurs in most countries of the world. The map (*pictured*) indicates its distribution in Turkey. The disease is usually confined to small, well-defined areas and occurs in cattle raised in mountainous, wooded wastelands. A. M. Pamukcu (Zentr. Veterinarmed., 4: 185-197, 1957) demonstrated that the serious problem of enzootic hematuria in cattle and water buffalo along the Black Sea was a manifestation of carcinoma of the urinary bladder.

Initial epidemiological studies convinced Pamukcu that an environmental factor was involved, it being the common fern of the mountain forests (*Pteris aquilina*). Collaborative investigations between Dr. Pamukcu and Dr. J. M. Price extended the field studies in Turkey. Cattle from non-disease areas (e.g., Ankara) were fed bracken fern from farms where the problem existed (in the mountains near Bolu). Bladder cancer was induced in virtually all cattle that survived for more than 3 years on a feeding regimen patterned after field observations. The induced bladder cancers were indistinguishable from the disease seen under natural conditions (*cf. Cancer Res.*, 27: 917-924, 1967 and 28: 2247-2251, 1968).

Bracken fern feeding produces intestinal and urinary cancers in rats (*J. Natl. Cancer Inst.*, 43: 275-281, 1969) and leukemia and pulmonary tumors in mice (*Cancer Res.*, 32: 1442-1445, 1972). The thrust of current studies is the identification of the chemical carcinogen in bracken fern.

A. M. Pamukcu (*left*) was born in 1912 in Diyarbakir, Turkey. He received a D.V.M. degree from the University of Ankara, Turkey, in 1938, and a Ph.D. in Animal Pathology from Michigan State University, East Lansing, in 1948. In 1957 he became Professor at the University of Ankara and in 1959 was made Chairman of the Department of Pathology, Faculty of Veterinary Medicine, at the University.

James M. Price (*right*) was born in 1921 in Onalaska, Wisconsin. He received a master's degree in biochemistry, a Ph.D. in physiology, and an M.D. degree, all from the University of Wisconsin. He was appointed Assistant Professor of Clinical Pathology at Wisconsin. Later he became Associate Professor of Surgery in Cancer Research, Professor of Surgery in Cancer Research, and in 1963 Professor of Clinical Oncology. In 1957 he obtained the first American Cancer Society-sponsored Lifetime Professorship in Cancer Research and in 1967 joined Abbott Laboratories as Director of Experimental Therapy. Currently, he is Vice President of Corporate Research and Experimental Therapy.

The map of the bovine enzootic hematuria region in Turkey is from Dr. Pamukcu (*Ann. N. Y. Acad. Sci.*, 108: 938, 1963). The illustrations of bracken fern and of a typical wooded mountainous area of endemic disease occurrence in cattle were furnished by Dr. Price.

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The Journal of Cancer Research (1916–1930) | The American Journal of Cancer (1931–1940)

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