SUMMARY

Administration of the calculeogenic diet

Anderson et al. (1969) to adult albino male rats showed accumulation of calcium, inorganic phosphate and oxalate in kidney which are the common constituents of kidney stones. Urinary oxalate was determined to confirm the vitamin deficient state of the animals. Increased excretion was noticed in rats fed the calculeogenic diet. Accumulation of lipid rich bodies in the renal tissue of the experimental rats are also observed. Elevations in total cholesterol and in particular free cholesterol were the most striking observations. Moderate increase were noticed with respect to triglycerides and phospholipids also though not statistically significant.

Serum mucoprotein levels showed elevations in the test group of animals as compared to controls. Since mucoproteins are supposed to provide the organic matrix for urinary calculi and serum mucoprotein values are elevated in calculeogenic patients. This observation suggests that the nutritional state of experimental rats
may be similar to that of calcium oxalate stone forming men.

The observations made by us and their relevance to stone formation are discussed in the present study, in the light of current literature.