In 5 Japanese Black steers (2-2.4 years old) that originated from 5 different feedlots, the livers were found at slaughter to have multiple nodular or cordlike lesions (5 steers) and an extensive fibrotic area (1 steer). Microscopic changes included extensive fibroplasia in the portal tracts and chronic proliferative endophlebitis-like lesions confined to the portal vein branches. Fibroplasia was much more prominent in the macroscopic fibrotic lesion of 1 steer. Portal vein branches presented irregular variciform dilation of the vascular lumen and fibroplastic changes in the subendothelial areas that showed occasional hemorrhage and were simultaneously infiltrated with large numbers of mast cells and moderate to large numbers of eosinophils. Within these subendothelial regions, not only did mast cells exhibit cytologically atypical features, but they also formed multifocal nodules. The venous lesions may represent a variant of mastocytosis with specific involvement of the hepatic portal vein branches in cattle.

END