the location of the causative agent in regard to site and type of proliferating epithelial cells. The infectious papillomatosis of the bladder of rats is caused by an infestation of the transitional epithelial lining of the bladder, ureter and renal pelvis with a worm, trichosomoides crassicaudans and its eggs. Apart from the occurrence of these organisms free in the lumen of the bladder, they appear as intraepithelial inclusions in the lining, causing localized thickenings of the epithelial mucosa usually associated with the formation of solid epithelial papillary projections. The papillomatosis becomes, occasionally, very extensive and marked, resulting in the merger of the individual papillomas into an adenomatoid spongy network filling the lumen of the bladder. A connective tissue stroma is found only in very large and advanced papillomata. The condition is rarely associated with any inflammatory reaction in the submucosa. The disease is frequently seen in the domesticated albino rat and has been described by several investigators (Watanabe; Löwenstein; Fibiger; Jaffé and Radt; Hückel; and others). The author has found it in about 80 per cent of a series of approximately 2,000 rats.

The significance of this proliferative manifestation in relation to the Bilharzia vesical carcinoma of men lies in the fact, that these papillomas in the rat do not show at any time any infiltrative, destructive or metastatic tendencies indicating a malignant transformation. This evidence thus supports the conception, advanced before, in regard to the Bilharzia tumors, that the mere presence of a parasite in the bladder tissue is not sufficient to endow the epithelial mucosa with malignant properties in spite of its apparent stimulating effect upon the proliferative activity of this tissue.

Brief mention may be made of the frequent occurrence of bladder tumors (carcinomas, sarcomas, carcinosarcomas) among the Formosan yellow cattle (Bos zebu indicus) in certain regions of this island (Wake and Goto). In some herds 50 to 80 per cent of the animals, particularly the females, are affected by this disease, the causation of which is still unknown.

4. MECHANICAL TRAUMA

The question regarding the existence of accidental traumatic relations to the causation of tumors of the urogenic organs is of practical importance only in connection with neoplasms of the kidney. The protected location and the anatomical character of the other parts composing the urogenous system make them apparently less liable to traumatic influences of accidental nature or more readily accessible to diagnostic and therapeutic procedures (urethra), which enable the early determination of the extent and nature of the traumatic effects and their therapeutic mitigation.

The trauma, which is allegedly connected with the development of a renal tumor, consists in an injury to the flanks caused by a fall on this region, a blow against the back by a hard object (board, etc.), a blow with a foot, an excessive strain of this region, while lifting a heavy object, the excessive effort