

Wiley and Wolfe) became definitely and, at times, strongly alkaline, though normally acid, many months before the tumors became manifest.

Kennaway considered the possibility that the potentially carcinogenic substance acquires cancer-producing qualities first under the chemical conditions which prevail in the urine. Since this change takes place rather slowly, the kidneys and ureters should tend to escape.

If these considerations are applied, additional support for the urogenous theory is obtained from the interrelations existing between the local distribution of the aniline tumors in the bladder and the anatomic conditions of the viscus, especially those of the floor. Aniline tumors in man are found most frequently in the trigonal and paratrighonal area and the lower posterior wall, i.e., in the dependent parts of the organ. Hueper (1934) found 60 of 81 tumors and Gay 11 of 17 tumors located in the region of the floor. A more detailed analysis of the distribution shows that there is crowding of tumors around the ureteral and urethral orifices, where a certain mechanical trauma from the urinary flow is present, and in the areas lateral to the plicae uretericae and in the fossa retroureterica, which represent the most dependent parts of the floor, as the area of the trigon is elevated slightly.

Local Distribution of Tumors in the Bladder

	<i>Papilloma</i>	<i>Carcinoma</i>	<i>Total</i>
Trighonal region	13	47	60
Elsewhere	2	19	21
Mixed (multiple tumors)		8	8

Bladder tumors of chemical etiology thus follow in their location and distribution in this viscus the cryptogenetic vesical neoplasms (Watson; Hueckel).

The marked significance of static conditions for the localization of the aniline tumors in the bladder has been further emphasized recently by observations made in dogs with experimental tumors (Hueper, Wiley and Wolfe). These investigators found that the great majority of the pretumorous and tumorous formations were located in the region of the dome and of the adjacent and mainly anterior parts of the bladder, where also the largest tumors were noted. On account of the different static conditions present in the dog, these areas represent the most dependent parts of this viscus when the dog is in a lying or a standing position. It may be added that a similar location of verrucous hyperplastic or papillomatous formations was observed in the bladder of mice after estrogen injections (Lascassagne), of rabbits after betanaphthylamine injections into the subcutaneous tissue (Hueper, Briggs and Wolfe), and after instillations of watery and oily solutions of aniline and ortho-amino-azo-toluene into the bladder of rabbits (Yamazaki and Sato), that is, in animals where identical static conditions prevail as those present in the dog.

The normal differences in the density of vascularization between the floor