

appreciable increase in the proportion of the malignant neoplasms, as is evident from the following evaluation of 62 instances collected from the European literature:

<i>Years</i>	<i>20-30</i>	<i>31-40</i>	<i>41-50</i>	<i>51-60</i>	<i>61-70</i>
Benign tumors	1	2	3	2	0
Malignant tumors	0	6	22	29	7

As the European tumor of this type usually is not discovered during an early developmental stage, these figures suggest the possibility that some of the benign tumors undergo malignant transformation at some point in their course and thereby increase the proportion of malignant tumors in the older age groups.

VIII. SYMPTOMATOLOGY

As aromatic amines are hemotoxins (methemoglobin formers), acute anilism is characterized by cyanosis, usually associated with stranguria, hematuria and symptoms of transient cystitis (Bachfeld). Rossbach, who in 1885 recommended naphthylamine as an intestinal antiseptic, recorded similar symptoms in patients who were subjected to this medication. Engel (1920 and 1924) observed these manifestations in dogs acutely poisoned with beta-naphthylamine. Such attacks are known to have occurred only rarely as a result of exposure to this substance during its production and handling (Engel, 1937). Apparently, acutely toxic doses are thereby rarely introduced (Muel-ler, 1936), as so far only two cases of acute hemorrhagic cystitis, following massive inhalation of beta-naphthylamine dust, have been placed on record. As frequently there have been no acute attacks of cyanosis and urinary symptoms in the lives of persons afflicted with aniline tumors, it is highly doubtful, whether such occupational episodes are of diagnostic or causative significance. In only 13.5 per cent of Anderson's 23 cases did the patient give a history of urinary disturbances preceding the discovery of the tumor. Washburn reported that 52 per cent of the patients showed no symptomatic evidence of tumor of the bladder. Wolfe related that only 4 of 65 patients had hematuria, urgency and frequency of urination and that all 4 had well advanced tumors. Only a few of the remaining patients showed occasional red blood cells in the urine.

Aniline tumors, therefore, do not produce during their early developmental stages any subjective symptoms, and these may be absent even when the neoplasms are well advanced. Hematuria, intermittent or constant, is the most frequent early symptom. Other subjective complaints more or less often noted during later stages of the disease are stranguria, burning sensation at urination, pain in region of the bladder, frequent micturition, oliguria, difficulty in urination and the passing of shreds. For a long time the symptoms remain purely local, and the general health is not affected seriously. The urine is usually sterile on culture (Oppenheimer).

These observations show convincingly that the only reliable and effective