EPIDEMIOLOGY AND PATHOLOGY OF PHARYNGO-ESOPHAGEAL CANCERS IN DOMESTIC FOWLS FROM HENAN MIGRANT COMMUNITIES AND NATIVE INHABITANTS IN ZHONGNAN COUNTY, HUBEI PROVINCE

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TABLE 1. GULLET CANCER (GC) IN CHICKENS

<table>
<thead>
<tr>
<th>Age (yr)</th>
<th>Migrants/ Chickens</th>
<th>Neighbours' Chickens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>With GC</td>
</tr>
<tr>
<td>2</td>
<td>2858</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>2082</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>682</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>210</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>84</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>53</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1484</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: The table shows the number of gullet cancer cases in migrants and neighbors' chickens in different age groups.
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As science regains esteem in the People’s Republic of China, oncologists are emerging with observations of exceptional international interest. Foremost among these has been the parallel epidemics of esophageal cancer among the people of Linhsien County, and gullet (mainly pharyngeal) cancer in their chickens. A task force approach has been used by scientists from the Institute for Cancer Research of the Chinese Academy of Medical Sciences (Peking) and from Honan Province (lower center group photograph).

A subunit, the Coordinating Group for Research on the Etiology of Esophageal Cancer in North China, has reported that, when more than 50,000 Linhsien people were displaced by a reservoir built at the site of their commune, they moved to an area 360 miles away, where rates for esophageal cancer were normal. They are said to have brought only one chicken with them and acquired new ones from nearby flocks that had been free of gullet cancer. Within ten years their new chickens developed gullet cancer, but chickens that remained in the original flocks did not. The center photograph shows key features from the publication of the group in Acta Zoologica Sinica, 22: 314–318, 1976. Something the migrant people brought with them is apparently responsible for this remarkable occurrence. Perhaps a natural carcinogen is present in the recipe for some food, such as the Linhsien special “pickled” vegetable mix, which is fed in table scraps to the chickens.

Chinese oncologists follow Mao’s teaching that prevention should be emphasized above all. Children serve as health educators as they dance and sing advice on public health measures to avoid the suspected causes of esophageal cancer. The people are urged, among other things, to reduce nitrates in the drinking water and protect food from fungal contamination. The children also sing about the earliest signs of the cancer so that it can be detected promptly at a time when treatment is most effective (upper right). Mass screening for early detection is performed by barefoot doctors through the use of a gauze-covered inflatable balloon at the end of a tube that is easily passed into the patient’s esophagus (upper left). Smears are prepared from cells that adhere to the gauze and are examined for neoplastic changes. These and other innovative measures in Linhsien and elsewhere have generally improved hygiene and given impetus to screening for other cancers and for other diseases—in industry, for example.

A full account, Cancer in China (H. S. Kaplan and P. J. Tsuchitani, eds., New York, Alan R. Hiss, 1978), has been published as a monograph by the U. S. delegation that visited in September–October 1977. The photographs on the cover were provided by C-C. Ting, I. B. Weinstein, and R. W. Miller, who were members of the delegation.