As long ago as 1862, Villaret contended that pulmonary anthracosis had its origin in the intestinal tract, and since then there have been quite a number of supporters to this idea. Arnold, in 1885, could not find the presence of lamp black in the mesenteric glands, though much was present in the intestinal tract. This was commented upon by Vansteenberghe and Grysen, who pointed out that dust particles could pass through the lymphatic glands and reach distant parts without leaving a trace of their passage through them.

The greater number of experiments, to prove the veracity of the different contentions, were made by allowing animals to inhale smoke or to injest lamp black. Calmette found that smoke particles do not reach the lung alveoli unless the experiment is carried on for over an hour. On the contrary, Kuss and Lobstein demonstrated the presence of charcoal within the bronchial glands and the lung alveoli at the end of twenty minutes inhalation. Their results are supported by those of Beitzke, who, as a further precaution in the experiments, ligated the œsophagus.

That pulmanary anthracosis may have its origin fro mgastro-intestinal tract has also been proved. These experiments have become complicated as the invasion of the dust by the respiratory system and the glandular system of the neck had to be excluded. This was done by introducing the foreign particles into the stomach by gastrostomy. In such cases, a certain amount of anthracosis was produced in the mediastinal gland, but very little reached the lung tissue. It was found that only large quantities of charcoal so introduced would give these results, and that this route was not to be considered in the human.

Lamp black, when introduced into the circulatory system, becomes lodged in the liver, spleen and kidneys with only a very slight amount in the lungs.

In general, therefore, it might be said that animal experiments point to the respiratory system as being the site of invasion of coal dust, and that the alimentary tract plays a very unimportant role.

O. K.