

and carcinoma. Not infrequently, however, sarcoma forms huge solid tumors, replacing an entire lobe, or even an entire lung, and completely filling the pleural cavity. Carcinoma never produces such tumors.

This brief sketch may suffice to indicate the possible complexities of the clinical picture and the diagnostic difficulties that may present themselves, as it is evident that the subjective symptoms, as well as the physical signs, may vary within a wide range of possibilities according to the location and extent of the tumor, and the secondary as well as the direct involvements. Instances are occasionally met with in which there are practically no symptoms whatever. The patients are apparently quite healthy, and nothing points to pulmonary disease, when suddenly and without warning, some secondary growth in the brain, the spinal cord, the liver, the heart, etc., etc., causes grave and usually promptly fatal symptoms. These cases are, however, rare. As a rule there are early signs, often but slight, it is true, but, if taken at their proper value, most significant. Pain in the chest is a very common and frequently a very early symptom. According to Schmidt<sup>5</sup>, the lung tissue proper does not appear to be sensitive to pain, and real pain will, therefore, only be produced when the pleura is involved; hence, in the earlier stages, the chest pain is rarely sharp, but rather a dull, indefinite, unlocalized discomfort. With the further involvement of the pleura, and with the advent of inflammatory processes and effusions, the pain may become very intense and persistent. In accordance with the well-known relations of the pleura to the brachial plexus, the intercostal nerves and the diaphragm, the painful radiation along the shoulder and arm of the side affected, along the intercostal nerves, the costal arch, and in the abdomen is frequently very marked. Shortness of breath on slight exertion is probably one of the most constant, and often, too, one of the very earliest signs, and when heart disease can be excluded, of great diagnostic significance. The higher grades of dyspnea belong to the later stages of the disease, and are always due, not to bronchial obstruction, as is frequently but erroneously maintained, but to compression or obstruction of the trachea. There is nothing, perhaps, in the whole range of human suffering which we physicians have to witness and to combat, so horrible and so hopeless as these extreme cases of orthopnea and suffocation resulting from substernal tracheal compression in the terminal stages of mediastinal or pulmonary tumor. Cough may be a very early, perhaps the earliest symptom, or it may not appear until a late stage of the disease, but it is rarely entirely