

these irregular areas of dulness are, as a rule, extremely feeble or entirely absent. This never occurs in tubercular or pneumonic consolidation. Bronchial breathing and increased vocal fremitus appear only when secondary inflammatory consolidation is established in the lung tissue surrounding the neoplasm. There is a certain element of instability in the physical signs which is also quite characteristic. An extensive area of dulness over which hardly any breathing sounds are heard may suddenly, because the cancerous obstruction in the afferent bronchus has partially or entirely sloughed off, and the bronchus thus again become pervious to air, exhibit loud tubular breathing and pectoriloquy. Some time thereafter the former condition is restored, because the bronchus has again become blocked by a new proliferation of the tumor. A bronchiectatic cavity filled with mucus, pus and detritus, because the afferent bronchus is obstructed, does not produce any marked physical signs except perhaps some dulness. In one way or another the bronchial communication is re-opened and at once, within a few hours, we may have all the signs of a larger or smaller cavity. These sudden and surprising changes occur in no other form of pulmonary disease. The continued absence of tubercle bacilli from the sputum, whether bloody or not, speaks against tuberculosis, while the presence of the granular cells of Lenhartz points to tumor. In tuberculosis, fever of a more or less hectic type is the rule at a comparatively early stage of the disease, and it is always present when ulceration and the formation of phthisical cavities have begun. Cancer of the lungs may run its entire course from beginning to end without any rise of temperature. When fever does occur it is usually at a late period and is of quite an irregular type.

The fact that all these manifold lesions, consolidations, cavities, etc., are confined to one lung only, or perhaps even to a portion of one lung, may also serve to distinguish between malignant disease and phthisis. The modern tests for tuberculosis—the ophthalmalmo-reaction of Wolff-Eisner and Calmette, or perhaps better still, the cutaneous method of von Pirquet, may be of great value and should certainly always be tried in doubtful cases. Inasmuch as these reactions depend upon a tubercular process somewhere in the body, not necessarily in the lungs, a positive outcome will not necessarily exclude tumor, while a negative result would be of great importance as tending strongly to show that the process is not tubercular, and, therefore, going very far towards corroborating the suspicion of tumor. A further and very important diagnostic aid is afforded by X-rays. A bronchial carcinoma starting from the root of the lung, and from there