

THE POSITION OF THE APEX BEAT OF THE HEART AS AN AID TO DIAGNOSIS.

NORMALLY the apex beat of the heart is found on the left side of the thorax, between the fifth and sixth ribs, about two inches below and one inch within the nipple line. This position of the apex beat may be altered, not only in disease of the heart, but also in a number of other diseased conditions in which the heart itself is not affected. Therefore when the apex beat is displaced it is necessary to examine, not only the heart, but also other organs, a diseased condition of which may result in displacement of the apex. My purpose is to point out a few of the conditions which lead to this displacement and some of the aids to determine the cause of the displacement.

I. In disease of the heart itself.

In hypertrophy and in dilatation of the various cavities of the heart we find the apex beat displaced. Hypertrophy of the left ventricle causes displacement downwards and to the left. This displacement will be accompanied by an enlarged area of heart dullness, and in the majority of cases by evidences of disease either of the mitral or aortic valves. Dilatation of the left ventricle causes the apex to be displaced to the left. Here we will find increased heart dullness, evidences of valvular lesions, and a tremulous or wave-like impulse over the region of the heart. Hypertrophy or dilatation of the right ventricle leads to displacement of the apex beat to the left. The area of heart dullness will now be increased, the increase being more to the right. Accompanying this condition there will generally be found murmurs at either the pulmonary or tricuspid orifices, or at both.

II. In disease of the Pericardium.

In case of pericardial effusion the apex beat is displaced upwards and to the left. This condition is accompanied by increased area of heart dullness. The apex beat may be found as high as the third intercostal space.

III. In diseased conditions outside the Pericardium

1. Displacement towards the right.

Effusion into the left pleural cavity, emphysema of the left lung, pleural contractions on the right side and fibroid phthisis