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Observation on a Case of the Accidental Murmur of
the Heart Appearing in the Mesosystolic Phase.

By

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Vibrations of accidental murmurs are found in not a few cases to appear only in the mesosystolic phases, in which no significant vibration is found in the normal state. Such a phenomenon has been observed by some previous authors such as Benatt and Groedel. But they could give no explanation of the cause of these vibrations, because, in such a period of systole no event occurs in the heart which can be considered as causing these vibrations.

The writer has observed a case of this mesosystolic murmur.

Mrs. M. H. 25 years old, clinical diagnosis Mobus Basedowii. Margin of heart dullness normal (i. e. upper limit, IV. riv; left, at mammillary line; right, at left sternal line.); slight systolic murmur heard at the base of the heart. A murmur in the artery heard at the left supraclavicular space. Blood pressure; P. 1. 125 mm, P. 4. 65 mm, P. 5. 60 mm; pulse rate, 86. Electrocardiogram normal. The records here shown were obtained from the base of the heart, and the left supraclavicular space.

In fig. 1, which was obtained from the base of the heart, the first and the second sounds are prominent and show the normal appearance,

Fig. 1.

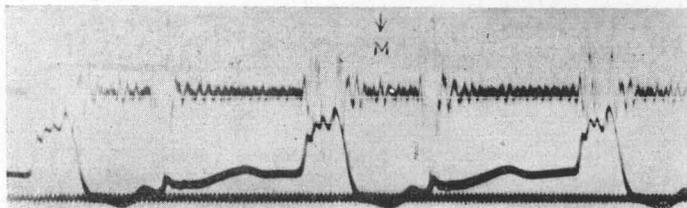
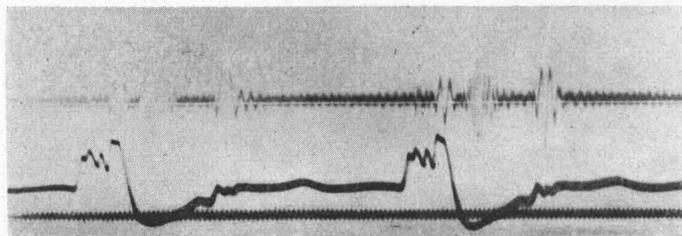


Fig. 2.



and there appear small vibrations of a murmur (shown by the mark M) at the end of the first sound. In fig. 2, which was obtained from the left supraclavicular space, the vibrations of the first and the second sounds are small, while the vibrations appearing between the first and the second sounds are very pronounced. The beginning points of these vibrations in both figures, coincide with each other, the interval between the beginning of the apex beat and that of these vibrations being found by measurement to be about 0.12 sec. Hence these vibrations observed in both figures are considered to be identical. But as is seen in the figures, these vibrations were more intense at such a point same distance away from the heart, so, it is obvious that these vibrations in this case did not originate in the heart, but were produced probably at a certain point in the artery.

The writer has observed these mesosystolic murmurs in some other cases such as beriberi, in which the minimum pressure was found to be zero, i. e. the sound phenomenon was perceived in the artery.

The writer therefore believes that some of these mesosystolic murmur which can not be explained by any event in the cardiac cycle, originate in an artery at some distance from the heart.

Bibliography.

- 1) *Benatt*, *Klin. Wochenschr.*, 7 Jahrg., 752 (1928).
- 2) *Groedel*, *Pathologie und Therapie der Zirkulationsstöruogen*. Bad Nannein. 139 (1930).