

The seemingly casual occurrence of these murmurs at the apex replacing those at the pulmonary and again a few days later giving place to them, differing too in no way from the basal murmurs in quality, makes one question Leube's statement that the hæmic murmur is always at the base and that a murmur at the apex is always due to a relative mitral insufficiency.

The transient murmurs of typhoid are best illustrated by a glance at two or three of the cases:

CASE I.—(Murmur corresponds with course of fever). A. B., admitted on 8th day of disease. High temperature until 25th day when defervescence began; normal temperature 41st day.

On admission, faint blowing systolic murmur at apex, not transmitted; louder murmur at pulmonary cartilage; faint murmur at aortic, accentuation of pulmonary 2nd sound. These conditions noted daily until 17th day when the basal murmur disappeared; that at the apex persisted; on the 24th day (commencing defervescence) this also disappeared. The heart was examined daily until the 62nd day and there was no recurrence of the murmur.

CASE II.—(Murmur ended with pyrexia but disappeared and reappeared again during its course.) C. D., admitted on 22nd day, temperature $105\frac{1}{2}^{\circ}$; high pyrexia until 42nd day; temperature slightly lower (102°) until 45th day, when defervescence began; temperature not normal until 95th day.

On entrance a blowing systolic murmur was heard at apex and pulmonary cartilage, noted for three days; on 27th day, no murmur at pulmonary nor at apex, but here lengthening of the 1st sound; on 33rd day, a faint blowing systolic murmur developed at apex, noted daily until 65th day when it disappeared; daily examination of the heart until 95th day revealed no return of murmur.

CASE III.—(Murmur at pulmonary cartilage during height of fever: interval with no murmurs; murmur developed at apex during convalescence). E. F., admitted on 27th day, defervescence began on 42nd day, temperature normal on 48th, no recrudescence.

On entrance, systolic murmur at pulmonary with pulmonary accentuation; this was noted every day until its disappearance on 36th day; on the 61st day (temperature normal; patient doing well in every way, still quiet in bed), a systolic murmur developed at the apex, heard as a rougher sound at the pulmonary; noted daily until the 69th day when it disappeared. On the 71st day (two days interval with daily note of no murmurs) murmurs were again heard at apex and pulmonary which persisted (daily note) until the 84th day. Patient discharged 87th day; pulmonary 2nd sound remained accentuated at exit.