

In acute exudative and in acute diffuse nephritis the main indications for treatment are to diminish the severity of the nephritis and to regulate the circulation. To diminish the severity of the nephritis we employ cups over the lumbar region, heat over the lumbar region or over the entire body, and the internal use of calomel, sulphate of magnesia, opium, aconite, or digitalis.

The disturbances of the circulation are largely the causes of the cerebral symptoms and of the dropsy. With a laboring heart and contracted arteries we employ the drugs which dilate the arteries—chloral hydrate, opium, nitrate of amyl, and nitro-glycerin—or we diminish the quantity of the blood by venesection, sweating, or purging. With a feeble heart and relaxed arteries we use the cardiac stimulants.

In chronic nephritis climate and mode of life constitute the important parts of the treatment; it is doubtful if drugs exert any effect on the nephritis. A warm, dry climate and an out-of-door life are of the greatest importance. Medical treatment can, however, be employed with advantage for the relief of the anæmia, the dropsy, and the disturbances of circulation.

With the classifications of kidney disease now in common use you are all familiar. You know the number of names employed and the contradictory meanings attached to these names by different authors. Many of you must have experienced the extreme difficulty there has been in teaching students to understand Bright's disease. I leave it to you to determine how far the plan which I have proposed is likely to be of practical use.

CLINICAL OBSERVATIONS ON THE CARDIAC BRUITS OF CHLOROSIS.

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In the medical out-patient department of the Leeds Infirmary, during the last two and a half years, I have been able to record the presence or absence of cardiac bruits in 205 cases of simple chlorosis. Cardiac bruits were present in 115 cases, and absent in 90 cases.

In the 115 cases in which bruits were present, their locality was recorded as follows:

A systolic bruit, audible at the base only,	in 56 cases
“ “ “ apex “	“ 13 “
“ “ “ base and apex	“ 24 “
“ “ “ base, apex, and back,	“ 22 “
	<hr/>
	115 “

So that in 102 cases a bruit, always systolic in time, was heard at the base, wherever else it might be heard, showing the great preponderance of basic bruits over apical bruits pure and simple—a fact in accord with general experience.

The cases in which the systolic bruit was audible at the base, at the apex, and in the back are naturally those which will excite the most interest, and it is to them particularly that I intend the few remarks which follow to apply; at the same time, it will be perceived that whatever can be said of the chlorotic bruit following, in its locality, rhythm and conduction, all the characters of the mitral regurgitant bruit of organic disease must be applicable *pari passu* to all cardiac bruits arising in the chlorotic state.

I may at once assure the reader that I have no intention of launching into any theoretical disquisition upon the causation of the anemic murmur beyond the little that is necessary to elucidate the important clinical facts, as they seem to me, which these figures put before us.

It is now about three years ago that I became aware of the fact that in a certain proportion of cases of chlorosis a systolic murmur may be heard, not only at the base and apex, but also at the angle of the left scapula and in its immediate neighborhood, and since then I have been careful to note the locality of all bruits heard in cases of that disease, with the result shown in the figures given above.

The bruits were in all cases clear and distinct, though usually of a soft, blowing character, and audible to the students frequenting the out-patient room, so that there could be no reasonable doubt attaching to the observations. But I am quite sure that now and again the anemic murmur may be observed to come and go, so that at one time it may be audible and at another not so. Hope noticed this fact, for in his work on *Diseases of the Heart*¹ he says, speaking of the inorganic murmur: "The murmur is not constant, but occasional, coming on whenever the circulation is excited, and for exciting it the most trivial causes, as Laennec has observed, are sufficient."

In the crush and hurry of the out-patient rooms it has been impossible, I am sorry to say, for me to record accurately the concomitant conditions of the heart, but there is no doubt that in the cases presenting a bruit audible at the base, the apex, and in the back, marked changes in the character of the impulse and in the locality of the apex-beat were almost always present, indicating dilatation of the ventricle or ventricles and an increased force of the cardiac contraction. So well marked and constant have these changes been, that I have found myself able, with tolerable certainty, to predict the bruits to be heard after placing the hand upon the præcordium. These changes in the cardiac

¹ 1839 ed., p. 106.

chambers, the result of anæmia, were first seriously studied in this country by the late Dr. Pearson Irvine, who made an elaborate communication to the Royal Medical and Chirurgical Society on May 22, 1877,¹ on the subject, in which he stated that "The apex-beat in chlorotics is carried too far outward, is too diffuse, and in this respect corresponds with the general cardiac impulse, which is usually 'slapping' and like that met with in organic disease." This statement is quite in accord with my own observations, the conditions described by Dr. Irvine being most marked in the 22 cases in which the bruit was audible in the back as well as at the apex and base.

Speaking from my own cases, the duration of the cardiac murmur of chlorosis is not long after the patient has been put under efficient treatment by iron. I should say that, *as a rule*, all murmurs have disappeared at the end of three weeks on the average. In the base, apex, and back cases, the order of their disappearance was the reverse of that named, the basic murmur being the last to depart. This seems to suggest what I have no doubt is the fact—that whatever the mechanical conditions giving rise to the bruits may be, the basic bruit is the earliest and mildest result of them, the back bruit the latest and most serious.

In regard to the general conditions attendant upon bruits in chlorosis, I have found it impossible to predict with certainty any cardiac change that may be present from the intensity of the pallor, the duration of the amenorrhœa, or the obstinacy of the constipation—those cases in which the blood-change seemed greatest having sometimes no bruit at all, while those which had a minimum degree of pallor might present bruits audible at the base, apex, and back.

An apex murmur, systolic in time and conducted to the angle of the left scapula, has usually been held to be distinctive of mitral regurgitation; and further, by those who do not agree that mitral regurgitation may take place from functional or recoverable conditions of the mitral orifice and its valve, is also held to be distinctive of organic disease. I well remember that Dr. Fagge always taught that a systolic bruit audible at the apex only might be either organic or inorganic in its origin; but if the murmur was also audible at the angle of the scapula, then there could be no reasonable doubt as to the organic nature of the condition giving rise to the abnormal sound. In his article on "Diseases of the Valves of the Heart,"² Dr. Fagge, after quoting Dr. Bristowe, Dr. Austin Flint, and Dr. Andrew, says: "These authorities believe that there are two criteria which may be applied to the determination of the fact that in a particular case a systolic apex murmur is really due to mitral regurgitation. The criteria are: 1. That the murmur

¹ *Lancet*, June 9, 1877, p. 837.

² *Reynolds' System of Medicine*, vol. iv. p. 643.

should be audible in the left side of the back about the inferior angle of the scapula. 2. That the pulmonary second sound should be intensified." He then says, a little later on in the same article: "My own views with regard to the interpretation of systolic apex murmur may be summed up as follows: 1. If such a murmur be audible in the back, it indicates mitral regurgitation. 2. If such a murmur be heard only at the heart's apex, we are unable at the present time to pronounce any positive opinion as to its cause, etc." I think there can be no doubt, from the title and context of Dr. Fagge's article, that he uses the term "mitral regurgitation" as synonymous with "mitral disease."

Walshe,¹ speaking of hæmic murmurs, says: "They are only in exceptional cases audible below the nipple and never within my experience perceptible as far as the left apex or outward toward the axilla." He says also in a note:² "I have never yet heard in a purely chlorotic woman a murmur having all the characters of a mitral regurgitant one."

I need not produce further evidence to show how strongly it is held that apical murmurs audible in the back always mean organic disease of the mitral valve. On the other hand, I am able to point to twenty-two cases, in twenty of which murmurs identical with those heard in undoubted examples of mitral disease disappeared under treatment in the course of two or three weeks. Nor am I alone in this observation. Dr. Kingston Fowler³ says, after reference to the works of Dr. Walshe and Dr. Hoyden: "Is every patient presenting the signs of mitral regurgitation, a systolic apex murmur conducted to the angle of the scapula and audible in the vertebral groove between the sixth and ninth dorsal vertebræ, to be considered the subject of organic disease of the mitral valve? According to Dr. Hoyden and Dr. Walshe this question must be answered in the affirmative. My own experience points to an exactly opposite conclusion. I have within the last three months seen at least fifteen cases of advanced chlorotic anæmia among my out-patients at the Middlesex and Brompton Hospitals, of whose cases I have careful notes, and in whom I have detected a systolic apex murmur, which has been distinctly audible not at the angle of the left scapula only, but in many at the right also, and in most of which cases the bruits have already disappeared under appropriate treatment. I have long taught that the anæmic murmurs obey the same law as to conduction as those of organic origin, and particularly that the conduction of the systolic apex murmur to the angle of the scapula is no sign of disease of the mitral orifice."

¹ Diseases of the Heart, 4th ed., 1873. Page 86.

² Op. cit., page 89.

³ On the Origin of Anæmic Murmurs. London, 1884. Page 35.

Dr. Broadbent also says:¹ "The occurrence of dilatation of the left ventricle and mitral regurgitation is very common as an effect of anæmia."

I do not attempt to reconcile these conflicting statements and experiences. I am content to accept the fact that an apex murmur audible at the angle of the scapula is not unfrequently to be observed in chlorosis, and also that the bruit disappears under treatment directed to the removal of the blood state, and so cannot well be due to structural changes in the mitral valve.

In two of the twenty-two cases the mitral regurgitant murmur has not yet disappeared, and as the cases have now been under observation for seven and nine months respectively, there is great probability that permanent changes in the heart have taken place. I will very briefly relate the chief points in these two cases.

CASE I.—Rhoda H., aged twenty-two years, came under observation January 7, 1891. She presented all the characteristic symptoms of marked chlorosis, except that she was menstruating regularly, and had not constipation. She had not had any rheumatic manifestation nor chorea. The cardiac action was extremely irregular, but no bruit could be heard on this occasion. She was ordered a perchloride of iron mixture. On February 2d she was improving in appearance and general symptoms. The heart's action was still irregular, and a systolic bruit was heard at the apex only. February 17th: Heart's action quite regular, systolic bruit heard at the apex and at angle of the left scapula. She has taken the iron mixture since January 7th. On March 3d I made a note that I thought the bruit was organic, and ordered her a digitalis mixture and sulphate of iron pills. May 26th: Has taken digitalis and iron regularly since March 3d (eleven weeks); cardiac action very irregular, systolic apex bruit heard occasionally. On July 10th she was reported very ill and unable to attend. Saw her ten days ago. Heart regular. Bruit still present.

I have very little doubt that this case ought to be regarded as one of chlorosis in which the bruit has become permanent, unless, as is quite possible, she is the subject of long-standing mitral disease, and had by accident, as it were, become chlorotic. Stokes¹ narrates a precisely similar case, in which mitral disease was found on post-mortem examination, and says that the combination of organic and anæmic murmurs, especially in young females, is not unfrequent, and it is often difficult to say whether the organic or functional disease has had the initiative. "Under these circumstances we have generally with the symptoms of anæmia the physical sign of a mitral murmur unattended by evidence of hypertrophy of the heart."

CASE II.—Ruth A. R., aged fifteen years, came to the out-patient room on November 18, 1890, with a chlorotic aspect and the usual symp-

¹ The Pulse. London, 1890. Page 160.

² Diseases of the Heart and Aorta. Dublin, 1854. Pages 150, 151.

toms. She had not menstruated. There was no constipation. She had not had any rheumatic manifestation nor chorea. A systolic bruit was heard at the base, apex, and back. She was ordered perchloride of iron in mixture. December 9th: Bruit still audible in all areas. January 13, 1891: Bruit persists in all areas. I made a note on this date that the bruit sounded like an organic bruit. February 24th: Bruit very faint to-day; so much so that I thought it had disappeared, after all. May 26th: Bruit very loud to-day in all areas and rough in character. She has been taking iron continuously since November 18, 1890, and has improved in appearance and has practically no symptoms. (P. S.) July 17th: Bruit still audible in all areas.

Here, then, are two cases in which a bruit indistinguishable from that of mitral regurgitation due to organic valvular disease persists in spite of long-continued treatment directed to the removal of the anæmic state. The observation of them has called to my mind an important and exceedingly interesting paper by Dr. Goodhart¹ on "Anæmia as a Cause of Heart Disease," in which he says that anæmia, by leading to dilatation of the left ventricle is a fertile source of valvular disease, and chiefly of mitral disease. Dr. Goodhart's cases were, I should observe, not cases of chlorosis, but of secondary anæmia; he nevertheless very properly applies his conclusions to chlorosis and all other primary anæmias. Sir Dyce Duckworth, also, writing in 1886,² says: "Evidence is, however, accumulating to show that amongst the results of anæmia a measure of damage to the mitral and aortic valves occurs."

The chief point I have wished to make in this short paper is that bruits, indicating mitral regurgitation, occur in a considerable proportion of cases of chlorosis, and that in a small number of such cases the cardiac condition ends in permanent organic disease.

A CASE OF ELEPHANTIASIS OF THE SCROTUM.

WITH REMARKS ON ITS OPERATIVE TREATMENT.

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ELEPHANTIASIS of the scrotum is so rarely met with outside of the tropics that to us it has little more than a theoretical interest. At the same time our relations with the surrounding tropical countries where the disease is endemic are sufficiently intimate now, and are increasing to such an extent that it is very possible that cases of this disease may be

¹ *Lancet*, March, 1880, p. 481.

² *Brit. Med. Journ.*, July 10th, p. 57.