ON CHOREA
in its Relation to Rheumatism, Disease of Heart, and Pregnancy.
It is the object of this paper to show that Chorea may be associated with three different diseases, viz., 1st, with Rheumatism and Arunetic Matrices, 2nd, with Disease of the Heart, and 3rd, and lastly, with Neurasthenia.

We will consider each separately.

1st. With Rheumatism and Arunetic Matrices.

It is to M. Sec of Paris that the Credit belongs of having been the first to announce the existence of a distinct connection between the diseases of Chorea and Chorea, in the Year 1855, and to Dr. Stenhousen in England, who m
the same year published his investigations on the subject. Mr. Lee stated, illustrating the intimate relation of the two affections, pneumonia and cholera, asserted not only that they occurred far more frequent than was generally estimated, but that the existence of a relation of a "Cause and Effect" between the two diseases. Mr. Lee, in his "Lectures on the Practice of Medicine to the University of Paris," advanced a still further and maintained that either was nothing but pneumonia or the disease of the mesons at birth. This extreme view was not generally accepted, and opinions on this point have varied greatly since. As new will endeavor to show up the physick.

Gree who are the most pleased to the existence of an intimate relation between the two affections (Mr. M. Allen and Parry of Warsaw; Dr. Bell of Dublin) in the prevailing that the coincidence is a common accident and by Mr. Lee.
So constant in its occurrence, as to
defy all the efforts of the other
theory.

Appraisers to putting into a discussion of
the Medical Remains of it may not be considered
inappropriate to notice the funda-
central of those physicians who have
produced advanced our knowledge of the
association since the few announcements
of Dr. B. in his personal experience
found that Rheumatic affections of the
joints, and Rheumatic pericarditis to be
frequent Concomitants and Causes of this
Disease.

D. L. C. (Dictionary of Practical Medicine) notices its facility
as to Conflagration with Rheumatic
Rheumatic pericarditis, and failures of
the Membranes of the Heart, as fully
demonstrated by them in their Topical
Med. Remains. Dr. West though
not exactly sharing the relationship
which I may dwell between the first
decades, observes: "That they have been
noted unquestionably for their frequent
for it. To have been traced to the build
Wicks, "Diseases of Infancy & Childhood," 1854

Statistical Analysis of Cases of Chorea: Medical Charity.

of a coincidence," but rather "the breakdow
it to them are far too numerous to al-
of the foundation of any hypothesis
which regards the phenomena of the cause
of these.

Dr. Jones, however, feels that
the frequent frequent Chancr-itis
which with Chancr is some form
of chancr or some effect.

Mr. Stevenson (Chancr and Mel: de l’Hotel
Dey de Paris) maintains that of all
the frequency cases of the disease
that which of the great distress and
inconsequence is undoubtedly the chancr
presence; and having at the idea
still further, the same author even
say the length of prestation that
their Chancys attached with Chancr and
become sooner or later, evident to the

Dr. Watson believes that there is a
frequent though not a necessary
connection between the Nervous Disease
andacute phenomena. Dr. Willis
acknowledges the latent delay of the
sick to be associated with phenomena
as its acute form, but intended
* Chorea and its Complications, Med. Lewis Gazette, July 1863.
observation has confirmed the views entertained by him. viz. that whenever Chorea begins in conjunction with Thrombosis the valves of the left side of the heart are involved, and that, therefore, the association of both between Chorea and Affinal Disease of the heart points to Thrombosis.

Dr. W. Beale, in his Clinical Lectures delivered at the Old Women's Hospital, asserted that there was an established connection between the two diseases; and that three cases of Chorea yielded more readily to treatment when complicated with Thrombosis than those unaccompanied. Dr. Beale has added many instances which are full of great interest.

The pathologist of Germany appears to have believe well with the association, since W. Romberg of Berlin states that, it was hardly traceable in the cases which came under his cognizance except, perhaps, as a Cadaver Coïncidence. Chorea may sometimes be developed durin
"Ved "Contributions to Practical Medicine." 1862."
...the progress, or towards the elimination of the Rheumatic Disease; occasionally, though rarely, it may proceed by the Manifestation of Rheumatism, in other Cases it has been developed for some weeks or Months after the subsidence of the rheumatic inflammation of the joints.

Various Explanations have been offered to account for the connection of the two Diseases; some, for instance, assign it to Metastasis of the Rheumatic inflammation to the Membranes of the Spinal Cord (F. Cockland); others attribute it to Gradation of the Rheumatic Fever (F. Bright). The hypothesis promulgated by Dr. Busby, in his paper "The Pathological Changes of Rheumatism in Man," is the one which has met with the most general acceptableness in this Country. It is that in the Cases of Croup associated with Rheumatism there are no evidences of the Extension of the Rheumatic inflammation to the Membranes of the Larynx, and no appearance of any Inter-Thoracic Mischief. The appearance
That, to quote his own words, "The ultimate and true view of their relation to the moon, which is admitted to exist in the rheumatic constitution; and this explanation will apply equally to Chorea occurring in individuals or families in: identify the rheumatic diathesis - to Chorea occurring in Connection with rheumatism, but without Cardiac Complication, and to Chorea associated with pericarditis, or Endocarditis, or both; the inflammatory affections of the fibrinous tissues, as well as the atheromatous infusions of the brussels, and the arising of the nervous system, originating in the same Specific disorder of the Cerebrospinal Fluids. The same authority claims that these familial causes will satisfactorily explain the occurrence of those symptoms of central disturbance, viz., ulceration and Which are so commonly reduced in time during the course of immediately Subject to rheumatic fever, and Not for What is owed to dehydration of the cerebral circulation produced through obstruction of
The terms Chorea and Rheumatism have been accustomed to be, without doubt, hereditary and hereditarily communicable; i.e., that Rheumatism in the parent may descend as Chorea to the child. Dr. Békési was to our knowledge the first to indicate the existence of a family connection between the two; to show, that is, that it was not infrequently happening that while one member of a family is subject to Chorea, another is predisposed or actually attacked with Rheumatism. In substantiation of this opinion, Mr. Lonnberg, in his Clinical lectures authoritatively asserts that he believes that Rheumatism in the parent is often the hereditary Rheumatism transmitted by the Child family in the form of Chorea. Should this fact be demonstrated by more lengthy and critical examination and the Conclave formed by the Royal Society, it would, I suppose, go far to establish Mr. Békési's theory, that the two diseases are not identical only, but essentially identical in their nature — that of a l
the same bloody poison may manifest itself as either Chorea or Paralysis. Mr. Lee has adopted the same general view, and in pronouncing his diagnosis goes the length of affirming that the Rheumatic diathesis is the real cause of nearly all, or at least a great proportion of the cases of Chorea, whether any affection of the joints be established or not. Pathologically he considers, that it is mainly through the medium of an inflammatory affection of some one or more of the second layer, especially of the protective membrane of the heart, that the Rheumatic diathesis induces the nervous affection. Mr. Lister in expressing his assent to theory professedly The Dr. Beagle's frequently remarks: "When pathological chemist's had long discovered what the blood poison in Rheumatism really is, there is every reason to believe that the same blood poison, or some modification of it, will be found to be the cause of Chorea; however much the two diseases may differ descriptionally." He also draws an analogy between the blood poisons albuminuria
Sodle Clinical Lect on Paralysis, Queen's Farm 17.
1868.
which has been shown by Dr. Taylor and others to make serous inflammations (as pericarditis, peritonitis &c.) and that equally through the animal economy in general which is so prone to rheums in some individuals internal serous inflammations in others, particularly in the young female sex, an affection of the alimentary system as in Chorea.

Valuable corroborative evidence has been derived from the chemical examination of the urine in cases of Chorea, especially that which shows reference to the condition it regards its high specific gravity and pronounced apposition of lethargy. Dr. Todd was the first to make the discovery. He says: "In the majority of the urines it is highest in those cases in which the movements are most general and most active, and it falls steadily with the diminution of a greater controlling power on the part of the patient." From the results of this examinations, he concludes that, "...hardly fail to notice that the general character of the prime in Chorea bears a marked
II. With Disease of the Heart.

G. Addison many years ago was the first to point out that frequent and extreme frequency of a Murmur of Endocardial Origin occurring in Cases of this Nervous Disease accompanying Rheumatism, and his accurate observation has since then received ample
Confirmation from the more recent investigations of Dr. Babington, Todd, Walsh, Balfour, and others. The murmur possesses a "soft hollow" character; its situation is most commonly at the apex of the heart, and in all cases without elevation, recognizable for its production a distinctness of the internal valve of the aortic valve. Another murmur may be occasionally detected simultaneously with the second sound, at the base of the heart, due to its uncertainly marked by the characteristic symptoms of imbibition of blood (in the case of anemia) its nature necessitates a careful discrimination, whether due to organic or to purely functional causes. The latter is generally the case.

In what does the murmur depend? This question has given rise to much discussion, and as yet several considerations have been advanced. Dr. Walsh in his "Diseases of the Heart" states that a metallic murmur may exist independently of organic disease, the murmur being produced by regular and momentary contractions of the muscular papillaries which are attached to the segments
of the valve, which permits a stagnation of the blood to take place during the condensation of the choric pulsations. This engeneous desire for close examination will be found to be reconcilable with the facts which will be subsequently adduced. Dr. Todd and Hales are strenuously opposed to this explanation, the former assuming that it is entirely impossible for closure of the valve to be effected by any momentary contraction of the valvular apparatus, as Walshe endeavors to establish; while the latter states that a murmur may be absent during the life of the patient, the choric movements being at active vibration. Yet after death the valves of the heart may exhibit unmistakable evidence of the existence of recent valvular motion. Besides as Dr. Stiles says, there is no satisfactory proof that voluntary muscular action has the heart or mitral valve, participate in the general choric action and it can only influence the presence of a thrum and not a permanent murmur, as is the case in choric. Dr. Webbe lends his authority to temporary character of the murmur, and observing "that the indolence of the m
Sold on Silk and Rheumatic Fever. Feb '16.
Concurrently, in some instances, with the ordinary Chorea justations gives support to
this opinion.

And to most satisfactory solutions of the cause of
the murmurs at first proposed by Dr. Todd "which is to be found in the fact that"
in many of the patients who suffer from
Chorea are of the Rheumatic diathesis, and
that as consequence of this Rheumatic Stasis
they experienced an accidental Endocarditis that
generally affects the Mitral Valve."

As regards the frequency of cardiac
disease various operators have been drawn as
by authors on 35 to 40 new per cent
of post mortem cases. Collected by Mr. Lee
there was evidence of inflammatory effusion
along the surface of the endocardial
membrane; and "Endocarditis was one of the
most common of these Complications." Dr.
Hughes (quoted in Watson's Text Book of Medicine)
determined that "out of 1274 cases in which
special inquiries were made respecting
Rheumatism and heart affections there were
only 15 in which the patients were both
free from Cardiac Murmur, and had not
suffered from a previous attack of rheumatism.

As regards the seat of the affection of the heart, Dr. Eubanks has been...to be more frequently affected; the pericardium less so. In a set of 25 cases analyzed by Dr. Eubanks with special reference to the cardiac complication, we find that 15 cases manifested the presence of both endocarditis and pericarditis; in 11 instances the effects of endocarditis alone; and in the remaining 15 cases disease of the pericardium only.

Dr. West adds his testimony to the evidence of the relation, remarking: "A few endocarditis and pericarditis have been the only marked appearances discovered in some cases in which the convulsive movements were associated with inflammation." Other authorities of note have observed that pericarditis and endocarditis combined with chorea (chorea; "leprechaun's leap")

As to the probable cause of the complication of endocarditis with chorea, three different opinions are entertained. 1st: That which assumes the nervous disorder capable, per se, of inducing a distortion of the valve; 2nd: That the inflammation
if the endocardium predisposed to the development of the narrow lesion. 13. 4. The eye which certainly is the most tenable which attributes its presence to the result of a Common Cause a marked condition of the blood.

Dr. Brandon thought the same state of the narrow lesion which produced the phenomena of change also had a share in occasioning the cardiac inflammation, but as to the probable explanation of his view he does not venture to express a authoritative opinion. 12. I am inclined to the second conjecture, Dr. Reid, though I...
Mr. Lee, Todd, and Bkeeper: which has received nearly universal acceptance, as being unquestionably the most probable, i.e., that the famous has derived all the consequence of the duration of a common cause as a common state of the blood. Arguments have been brought forward from time to time by the opponents of the theory to disprove its correctness, but though this mixture somewhat against the theory of the commonality of the cause, it has added, not that this is not in our opinion consistent with the negative of entirely. The Chirur is only as a rational foundation of consequence in that. Namely, which accepts of the Chirurgie symptoms frequently occur, not being as had and not necessarily distinct, the cause of the pneumatic attack, when the duration may be presumed, not active but passive, and so it has been frequently observed, that all traces of the symptoms have disappeared for weeks or six months as the case may be.

Summary:—1. The association of Chirurgie with that of the heart is fully established. 2. The Chirurgie nearly invariable affects the endocardium, and consequently produces

...
changes of the valve structure. 3rd. That it does not necessarily follow that even a
Cardiac Neuramey gets about during life, disease of the heart is not to the dissection
and post-mortem examination. 4th. That the association of Cardiac Disease is due to the
necromatous blood.

III. Its Association with Pregnancy.

The occasional occurrence of the
Neuramey Disease with the parturient state has
been observed by several authors (Leven, Bury,
Ruthe 16). M.M. I. de la Donce and Monney have
published a interesting analysis of the
mentioned cases, in which many of extinct
fevers in connection with the application
are detailed in entries. In their analysis
from their investigations they state that
Chorea Seldom occurs during the second
month of pregnancy, or at all the sixth,
other fevers not connected to any irregularities
still the fifth month, in other instances
its postmenstrual age to the duration of the ordinary period of gestation (usually, 8½). Mr. Deb Corday, however, that the average period of the commencement is between the third and fifth months; although, occasionally, it may present itself sooner or immediately after delivery. Meaning states that it is quite, at exceptional circumstances to find the chosen present during the onset of parturition. Some authors favor a presentation from choice during the last pregnancy, but are attached indefinitely to the second. Obstericae are more likely to the affection of these legs shown, than those who have had children. The average period of lie according to Sec. 6, when the symptoms affect the may in itself, is from the ninth to the twelfth week of age. The disease has also been declared to manifest itself asymptptomatically or altogether in the normal state of pregnancy, or of any attendant affection during the life of the patient. When once developed, it usually remains until delivery is accomplished.
whilst the brain had been prematurely, or at the ordinary time, of its development, though in some exceptional cases it may remain for a longer period than the infantile

M. Bussey has made the observation that in those instances of Chorea Connective with pregnancy, the affection is almost always related to the Character of the mucus, jaw, and tongue being at the same time unusually affected in the disease.

What are the Causes which precede to the disease? Thus the very existence of the a

The physical Causes may be mentioned: 1st. Disease in vessels made on the individual, such as flatulence, etc., or intelligence of a painful description commencing abruptly to the part of the

circumstances acting on a highly developed nervous system. Such the early system may unexpectedly give rise to manifestation preceding the absence of the nervous symptoms, as placed by the face of the frequent occurring according to the establishment of the Catarrhus, or during the mental or intense state. From among the
Many explanations which have tended to account for the coincidence of the two diseases, the most reasonable and satisfactory one is that which attributes it solely to the peculiar nervous temperament of the patient, which is well known to be developed gradually, insidiously, at those periods, rather than to the pregnancy itself. This suggestion is materially favored by the fact that the disease has as frequently assumed the most severe or even fatal form in those subjects who had unfortunately become pregnant under circumstances attended by great mental distress or discouragement. Of theses or his communications on this subject in discussing the predisposing causes, Sandiford brought to light: "If it may be assumed that the chief tendency had all along existed in those attacked but that it required the peculiar circumstances connected with pregnancy, especially to precipitate it and, in addition, besides some direct exciting conditions, like mental shock, or some associated disease to develop it."

The same authority adds two cases of mental change distinctly like St. Bartholomew's Cocktail, one which terminated in a fatal issue.
In both cases, the Chorea sequela was characterized by the rendered severity, and the obstinacy with which they resisted the ordinary medical measures, excluding the administration of Chorea, which subdued the movements, only during its fulmination. The argument of the delivery of the cases, Dr. W. has opposed that no inflammatory podduction could be traced on the labial, however, it was permitted that SSD had been placed to vaccination on early the.

The pathological phenomena in these cases were chiefly according in demonstrating the presence of recent inflammatory products of the articular value; the thing long that was usually discovered accompanying such cases was a complicated Chorea. The fact of the tolerance of vascular inflammation is of great importance, since it has been observed in all of the cases of such Chorea anemia. State of the vascular constitution was curiously established as having been remedied by the therapy.

So his logical conclusions from this circumstance Dr. Wilt was just that we can as a position to understand the occurrence, as pathological reasons, of Chorea in pregnancy.
or during any temporary functional disarrangement of vital organs, provided there is, as there
is, a sufficient collateral vascular durance.

Partly by the mere circulation of blood through the various capillary vessels, also, partly
by the easy absorption in the minute capillaries, recognized by physicians, it is said, as in
the irritations leading to the development of the Chorea, or other analogous phenomena may be
accounted for.

Summary

1. Chorea is more liable to attack
   primigenae than those who have had children.
   2. Seldom or never presents itself during
      the process of parturition.
   3. That the
      convulsions of the disease is probably due
      more to exciting circumstances acting on an
      undetermined nervous system, than to the
      puerperal excitant itself.
   4. That absence
      of the velles of the head (left side) may
      be observed at pian time of fatal seizure
      Chorea, and may therefore, play a material
      part in the production of the disease
      phenomena.

John Alphonse
Mr. Williams, etc. 
Dr. Moss, etc. 
Mr. Williams

Observations of the Conway Regius Links 

[Signature]