

drifted from one institution to another and had undergone various methods of treatment with varying benefit. Some had apparently gone through different stages in their gradual downward course. In a few, post-mortem examinations were thoroughly made by Dr. McGrath, Dr. Nichols and Dr. Richardson; in some, all of the joints being examined, showing various stages of progress; several in both macroscopical and microscopical studies were made.

A full report of the results of these observations will be made later by Dr. E. H. Nichols and Dr. F. A. Richardson. From the cases seen it appears that although there are several variations in the symptomatology yet the general type is a clearly recognizable one, especially among the old, the variations being perhaps due to varying resistance of certain tissues or the differing strength of the exciting cause. The changes affect the fibrous tissue about the joint, *viz.*, capsule, ligaments. In some instances these are limited to a fibrous degeneration; later, ossification takes place with the formation of exostoses or enlargements of the bone. Effusion, thickening of peri-articular tissues, atrophy, the development of fibrous growths of the synovial membrane, ulceration of the cartilage, either from degeneration or from pressure, eburnation of bone, are all observed. In some cases the existence of a virus, either as a contributory or exciting cause, *viz.*, gonococcus, was known; and in many, a toxin as yet unknown seemed probable. In most of the cases the patient appeared to be suffering from the effects of a systemic disturbance attacking different parts of the body, though to a greater degree in some than in others. An analogy to what occurs in arterio-sclerosis suggests itself, and the probability that the affection in question may be an auto-infection from defective metabolism, developing a fibrous degeneration of the cartilages, capsule and periarticular tissues, which develop at a later stage bone elements, bone structure, bone thickening and deformity, and in the earlier stages merely a loss of elasticity in the tissues involved, with slight alterations in the structure of the bones.

Under this explanation various causes may be supposed to excite in different systems similar results, but for successful treatment the existence of the faulty metabolism will have to be recognized.

In terminology the introduction of confusing terms is, of course, to be avoided. The terms "rheumatoid" and "chronic rheumatism" though strongly intrenched by usage are open to criticism as suggesting a kinship with acute articular rheumatism. The term "arthritis deformans," introduced by the great generalizer Virchow, has the advantage of being clinically descriptive of a process which, if unarrested, always deforms. This does not assume a pathological basis as yet undetermined, and does not prevent necessary subdivisions as the type of ossification or of fibrous alteration takes place.

The affection is remarkably chronic, is subject, like arterio-sclerosis, to arrest or ameliora-

tion of symptoms, and it is difficult to be certain as to the permanent benefit of treatment except in cases watched for years; but it is clear that cases can be helped for a time at least, and in all probability in some instances permanently, by appropriate treatment.

It is to be confidently expected that the investigations of Dr. Goldthwait and his associates will be fruitful of great benefit in the future as they have been in the past.

CHRONIC JOINT DISEASE.*

BY HENRY JACKSON, M.D., BOSTON.

In recent years advance has been made in two directions in our study of chronic joint diseases, first in nomenclature in that we are now inclined to drop the word rheumatism. We have long known that the chronic joint diseases under discussion to-night were not intimately related to acute rheumatic fever with involvement of many joints, yet the name "rheumatism" has been retained in speaking of the various chronic processes.

As to the adoption of definite names for the various forms of disease in the joints, chronic in nature, I am not so sure that we can as yet with any degree of certainty be too dogmatic.

In many cases it is difficult, perhaps impossible, even by x-ray examination, to determine the exact pathological condition in a given case. In fact the investigations of Dr. Nichols prove that several essentially different pathological processes may be the cause of chronic joint diseases that present identical, clinical conditions.

For the present at least I should favor the retention of the old name "arthritis deformans," as it is a term suggestive of a marked clinical feature, whereas osteo-arthritis is descriptive of a pathological condition, and may easily lead to confusion with another and probably entirely different process, osteitis deformans.

Rheumatoid arthritis is harmless as it merely suggests a disease similar to but different from rheumatism.

I think we must still leave a place in our nomenclature for "chronic rheumatism." There are cases of long continued joint disease that are acute or subacute in onset, yet last sufficiently long to deserve the name of chronic rheumatism. I say this with full knowledge of the fact that the chronic forms of disease under discussion to-night are liable to acute or subacute exacerbations with fever, hence may closely simulate acute polyarticular rheumatism.

The first type of the class spoken of by Dr. Goldthwait, chronic villous arthritis, may be extremely difficult to differentiate from chronic joint disease which has followed a slight and apparently harmless accident. As for instance the long cases of joint disturbance which follow a slight twist of the knee in playing tennis or skating. I suppose the pathological condition to be practically identical in chronic villous arthritis,

* Read at the annual meeting of the Suffolk District Medical Society, April 30, 1904.

and the cases here spoken of which follow an injury.

The cases of infectious arthritis present a large and very important class. It is my experience that in this class of cases we find the most intense pain, and unfortunately have no specific as salicylate of soda to relieve our patient. I think I have never seen more acute pain than in severe cases of gonorrheal and acute syphilitic joint disease. There is one class of joint disease acute in its course in which there appears to be doubt as to the etiology, namely, acute joint disease secondary to acute follicular tonsillitis. Is this acute rheumatism or is it an infection dependent upon some septic process as in the joint disease of scarlet fever? The clinical course and the fact that salicylates often relieve the pain suggest to me that this form may be properly spoken of as rheumatism in the strict sense of the word.

In hospital practice it is not uncommon to see a very perplexing form of severe joint disease that baffles us as to etiology and treatment,—usually monarticular, joint much swollen, boggy, intense pain, no proof of gonorrhea, no pus on aspiration, lasts weeks and often longer. This form is evidently septic, but the etiology obscure. X-ray has not shown the involvement of the bony tissues. Fixation is always necessary and baking has at times seemed to me to be of much value.

The second great advance has been in treatment in two directions. First, the great help obtained by properly applied fixation, a treatment that we as physicians owe to the great interest taken in chronic joint disease by the orthopedic surgeon. By this means the pain is relieved; by this treatment serious deformity may be avoided.

Secondly, we know that we must fight the disease as a chronic, depressing, debilitating process similar to tuberculosis. The most nourishing food that can be assimilated must be given in large quantities. The supposed danger of roast beef may be relegated to the fancies of the past.

In closing I would again say that I feel that in our modern knowledge as to chronic arthritis we must not forget that chronic rheumatism may exist, that is, a general systemic disease with its local manifestation in the joints.

CHRONIC JOINT DISEASE AT THE MASSACHUSETTS GENERAL HOSPITAL.*

BY H. F. VICKERY, M.D., BOSTON.

CASES of chronic trouble in the joints show a growing tendency to apply directly to surgeons rather than physicians, and this is true of hospital as well as private practice. I share in and am glad to express the gratitude which has already been voiced this evening by others, for the great additions to our knowledge of rheumatoid disease contributed by Dr. Goldthwait and the other gentlemen working with him.

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With the assistance of one of the medical house officers, Dr. Cleaveland Floyd, I have prepared a list of the diagnoses of joint trouble in medical cases admitted to the Massachusetts General Hospital from 1870 to June 1, 1903. It is interesting to notice the increasing precision in diagnosis in later years.

From 1877 to 1899 inclusive the joint troubles admitted were distributed as follows:

Rheumatism,	900 cases
Gonorrheal arthritis,	16
Gout,	24
Rheumatic gout,	3
Tabes dorsalis with Charcot joint,	1
A total of	944 cases

From 1893 to 1903 inclusive there were recorded

Rheumatism, acute,	591 cases
Rheumatism, sub-acute,	193
Rheumatism, chronic,	87
Total,	871
Gonorrheal arthritis,	86
Gout,	9
Chronic rheumatic arthritis and arthritis deformans,	40
Intervertebral rheumatism,	1 (1894)
Peri-arthritis,	1 (1903)
Acute arthritis,	7
Osteo-arthritis of spine,	15 (1902 & 1903)
Osteo-arthritis of hip,	1 (1902)
Osteo-arthritis of knee and ankle,	1 (1902)
Spondylitis typhosa,	1 (1903)

At least two other cases of this last trouble to my knowledge developed after entrance.

Thus in the last eleven years 1,033 cases of joint trouble were admitted on the medical side, and adding the cases previously referred to, the grand total is 1,977. Among all these we find but 33 cases of gout diagnosticated, a much smaller proportion than seems to occur in Baltimore.

In the classification given to-night the term chronic rheumatism has been dropped, and no speaker this evening as yet has referred to it. This doubtless comes from a conviction which is rapidly gaining ground that a chronic form of disease, essentially similar to acute polyarticular rheumatism, is of extremely rare occurrence, although without question some patients are afflicted with repeated and closely consecutive attacks of the acute disease, with more or less incomplete recovery therefrom.

Dr. Goldthwait assigns a more favorable prognosis to the atrophic than to the hypertrophic form of arthritis deformans. This agrees with the long-established clinical fact that cases of Heberden's nodes, affecting as they do the terminal phalanges, are more apt to have a mild course than are those cases in which the proximal phalanges are first involved with spindle-shaped swelling.

Dr. E. H. Bradford has suggested that in some instances of chronic joint trouble there may be a double infection. *A priori* this would seem to be perfectly possible, and I believe that I have seen cases of acute polyarticular rheumatism combined with gonorrhea and with gout, respectively.