gland. If his substance be really active it would indicate that the colloid matter owes its activity to the presence in it of an organic compound of iodine.

The above statements are founded on observations conducted on normal subjects, and on two cases of myxœdema, the latter, however, being by no means marked examples of that disease. Full clinical details of these cases, along with charts showing the effect upon pulse, temperature, and body weight of the administration of pure colloid matter I hope to publish in conjunction with a detailed consideration of the chemistry of the thyroid at a later date.

The object of the present communication is to encourage those who may happen to have under observation cases of well-marked myxœdema or of hitherto untreated cretinism to try in such the effects of the administration of the colloid matter. It is only by the results in such cases that the activity of the substance can be permanently established.

ANALYSIS OF 100 CASES OF RHEUMATOID ARTHRITIS TREATED IN THE ROYAL MINERAL WATER HOSPITAL, BATH.

By ANTHONY BEAUFORT BRABAZON, M.D.,
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I MUST preface the observations I am about to make by objecting *in limine* to the term "rheumatoid arthritis," and equally to the term "rheumatic gout," as misrepresenting the real characters of the disease under consideration, and as being calculated to convey false impressions likely to lead to errors in prognosis, diagnosis, and treatment.

In any observations I may make I have no intention or desire to criticise the opinions or views of those high authorities who have written earnestly and spoken eloquently on this subject. I only wish to take this opportunity to give expression briefly to opinions founded on personal observation extending over a space of twenty years, during which I have been physician to the Royal Mineral Water Hospital, and extending in round numbers to the observation of 1,000 cases of this disease who have been under my treatment in hospital.

As I am anxious to make my observations as brief as possible, it has occurred to me that I shall effect this object best by giving in a kind of statistical chart those facts connected with the 100 cases under my care in hospital during the two years ending May 1st, 1895, which I consider of most practical importance as a basis on which to found the conclusions at which I have arrived. I can promise that the basis is sound, these 100 cases being all truly and faithfully reported in my hospital casebooks by the intelligent and attentive resident physician, Dr. A. Wohlmann.

The chart includes statistics of 100 cases as to the numerical proportion of males to females, ages at admission, and as to the earliest evidence of disease, order of frequency, of incidence of disease as regards articulation, lapse of time between earliest symptoms and admission to hospital, and complications.

Observations, Statistical and Practical, of 100 Cases of so-called "Rheumatoid Arthritis" treated in the Royal Bath Mineral Water Hospital during two years ending May 1st, 1895.

ADMISSIONS.			
Males.		Females.	
Ages.		Ages.	
5 to 15	1	5 to 15	2
15 to 25	4	15 to 25	10
25 to 60	20	25 to 60	63
Total...	25	Total...	75
FURTHER SUBDIVISION OF AGES.			
Males.		Females.	
Ages.		Ages.	
30 to 40	11	30 to 40	18
40 to 50	6	40 to 50	27
Total...	17	Total...	45
ARTICULATIONS AFFECTED IN ORDER OF FREQUENCY.			
Cases.		Cases.	
Hands and fingers	78	Cervical vertebræ	36
Elbows	55	Ankles	58
Wrists	43	Temporo-maxillary	48
Knees	71	Hips	21
Shoulders...	53		

It will be understood that the above table refers only to the frequency with which the several articulations were affected. In some instances all those mentioned were found affected, in others only two or three singly or symmetrically.

INTERVAL BETWEEN FIRST SYMPTOMS AND DATE OF ADMISSION.

Males.		Females.	
Shortest period...	6 months	Shortest period...	6 months
Longest period...	25 years	Longest period...	20 years
Average interval	7.1 years	Average interval	3.7 years

The following were the occupations:

Females.—General servants, seamstresses, governesses, shop assistants, and school teachers.

Males.—Clerks, shopmen, teachers in schools, painters, colliers, and servants. Occasionally found in soldiers and sailors who have had foreign service in malarious climates.

Of the 75 females 34 were married; some were widows. Rheumatic fever had occurred in 29 cases at various periods before admission, in some as far back as 15 or 20 years, and had apparently no kind of connection with the symptoms on admission.

COMPLICATIONS.

Pseudo-paralysis, 1 case; osteo-arthritis, 4 or 5 cases; cirrhosis of liver, 1 case; Raynaud's disease, 1 case; phthisis, 1 case; cardiac derangements, 17 cases; bronchitis, several; albuminuria, very rare; angina pectoris, 1 case; chorea, rare; hysteria, not uncommon.

CONSTITUTIONAL SYMPTOMS.

These as presented to me during my hospital experience, as well as in private practice, are both remarkable and significant. I think it is strange that the older writers, and some among the more modern ones, have touched very slightly on the very extraordinary, though universally present, constitutional symptoms in more or less developed form. It seems as if they were so fascinated by the external appearance and pathological condition of the articulations that they ignored in a great measure the predisposing circumstances and accompanying general symptoms.

I shall now venture to give them in a succinct form as follows:—Evidences of previously failing health for a variable time before admission; history of predisposing causes, entailing wear and tear mentally and bodily, as shown in the nature of the occupation of the patient; gradual wasting of the muscles of extremities and of thorax, advancing to emaciation of the whole body; pulse generally abnormally quick, irregular, and weak; temperature inclined to be variable, particularly in the morning; occasional febrile exacerbations; sweating palms of hands, cold and sticky in character; anorexia, but appetite is variable and capricious; constipation as a rule; occasional thirst; frequently insomnia; occasional pains, something like those of "peripheral neuritis" over the body and limbs. Among the female patients amenorrhœa and painful menstruation are very common symptoms, anæmia generally present more or less marked; albuminuria uncommon; deposit of phosphates sometimes to be found.

The sweating of the palms of the hands is, particularly in females, one of the most frequently present diagnostic symptoms, and once felt will not be easily forgotten, from its peculiarity, being cold and clammy. The pigmentation spots described by my ex-colleague, Dr. Spender, which are, of course, more or less local symptoms, were reported in 19 of the 100 cases. My experience is that although the presence of these spots is a valuable aid to diagnosis, I cannot believe that their absence in cases otherwise well marked should create a reasonable doubt of the nature of the case.

I observe that Dr. Wohlmann, the resident physician of the hospital, to whose carefully compiled clinical records I am much indebted, has observed in several well-marked cases the sudden appearance of these spots. I am inclined to look upon them more as the outcome of the atrophic conditions conducing to the disease, than, practically speaking, diagnostic symptoms. The absence of cardiac symptoms is, I think, a very remarkable feature in this disease. It will be observed that in 100 cases only 17 had any cardiac derangement presenting a marked contrast to what is found in cases of purely rheumatic or gouty origin.

LOCAL SYMPTOMS.

The local conditions and symptoms have been described so often and so graphically, that I need not repeat, and I am certain I could not improve, those descriptions. I will therefore only point out the more general appearances of the unhappy victims of this "pernicious disease" as seen in well-marked cases, to wit, general emaciation of body and limbs,

the joints of the extremities, upper and lower stand out in bold relief, and sometimes in hideous deformity owing to this emaciated condition of the muscular structures, as well as to the enlargements of the articular extremities of the long bones. The wrist joints and hands present a tapering appearance very like that commonly observed in strumous disease of these joints.

Dr. Miller, Surgeon to the Edinburgh Royal Infirmary, on a recent visit to the Bath Hospital, remarked upon the similarity between these cases, and in a recent publication on the *Diagnosis of Tuberculous Disease of the Joints*, has given a very valuable table of diagnostic differences between the two affections. The fingers become spindle-shaped, the hands become comparatively useless from subluxation of the phalanges, and assume an appearance more like the claws of some animal than anything human. The feet become quite flat from relaxation of the plantar ligament. Fibrous ankylosis is certain to occur sooner or later, affecting sometimes all the joints, but generally the shoulders, elbows, wrists, knees, and ankles; ankylosis of the knees, flexed to an acute angle, being the most unfortunate of these conditions, as the patient cannot stand or walk; he or she is practically bedridden. Suppuration I have never seen. I think the earliest symptoms most often appear in the finger joints, with swelling, pain, and effusion in the joints, showing an early complication of the synovial membrane, with enlargement of the articular extremities of phalanges. Other local symptoms, such as grating on movement of the joints, I need not now refer to.

I will now briefly but particularly beg leave to draw the attention of my readers to what long experience has taught me to consider a most valuable means of diagnosis when patients suffering from this disease, even in its early stages, present themselves for examination. I refer to their physiognomical expression and general aspect, which are most remarkable; it is almost impossible to describe it. There is a worn look and an anxious expression of countenance, indicative of both mental and physical suffering, particularly marked in the female cases, but by no means absent in the males, a mixture of hopelessness and despondency. I have frequently pointed out this peculiarity to professional brethren visiting the hospital, and all have remarked it. Occasionally, but rarely, we find cases of a reverse character presenting a cheerfulness and hopefulness marvellous under their wretched conditions. Patients suffering from so-called rheumatoid arthritis belong to what is now known as the "neurotic type," an expression which I only use for want of a better one.

I will now venture to express the conclusions at which I have arrived, based on the statistics which I have collected, and which I know to be faithfully reported, and also on observations extending over twenty years. It may be said that 100 patients is a comparatively small number to deal with for this purpose; but I am quite certain that had I brought forward 500 cases, as I might have done, the statistical results would have been similar.

CONCLUSIONS.

1. That the nomenclature of the disease under consideration, namely, rheumatic gout, chronic rheumatic arthritis, and rheumatoid arthritis, is likely to convey a wrong impression, as being a disease which is a compound of gout and rheumatism, whereas clinical history and statistical facts prove that in a large majority of cases there is a total absence of gouty or rheumatic history.

2. That this is a form of articular disease dependent upon other and more remote causes.

3. That while admitting that the presence of gouty or rheumatic poison in the system may to some extent influence or complicate the symptoms and produce pseudo-rheumatic or pseudo-gouty appearances, it is only an accidental complication in a disease which is not primarily either rheumatic or gouty, nor a "hybrid" production of both these diseases combined.

4. That, taking into consideration sex, age, social conditions, and other facts borne out by statistics and clinical history of the disease, it is proved that the weaker sex supply the vastly larger number of sufferers. Endowed as the sex is with a more highly sensitive nervous system, subjected

according to the nature of their occupations to great physical or mental strain, and also to the depression connected with parturition, lactation, climacteric changes, or uterine or ovarian troubles, or to mental strain under most depressing circumstances, it is most natural that such should be the case.

5. That the disease under consideration may commence and produce in a marked manner all the symptoms and distortions observed at the later periods of life, in children as young as 9 years, but having no rheumatic or gouty history.

6. Although the local and pathological symptoms have been most accurately described by previous writers, such as Adams, Fuller, Garrod, and others, it would seem either that this form of disease has been mixed up with chronic rheumatic arthritis, or that the disease described by these great authorities has assumed new and most "pernicious" features.

7. The constitutional symptoms, and above all the physiognomical expression, in these cases are such as to be pathognomonic, and sufficient to enable any careful observer to form a diagnosis, except in the very early stage.

8. This disease appears to be the result of some disordered condition of the trophic centres and trophic nerves, producing atrophic conditions of the intra-articular structures, and involving in a general way the muscular and other structures of the body, accompanied by a series of constitutional symptoms, to which finally the sufferer succumbs. As a fact, cases of chronic rheumatism and of "chronic rheumatic arthritis," unaccompanied, as I have frequently seen them, by these dread constitutional symptoms, although crippled and victims of severe pain, may live to a good old age.

As yet no light has been shed on the "myelo-pathology," if such exists, of this disease, because at least, as far as I am aware, no microscopical examinations of the spinal cord or of any part of the nervous system has been recorded. Rumours of the discovery of specific bacilli have floated in the bacteriological atmosphere; possibly something may come of it in time to come.

TREATMENT.

I have left this to the last because I have not much new to say about it. Where causation is unknown treatment must needs be somewhat empirical. I shall only state that in my own practice I have found the combination of iron and arsenic the most effective treatment, particularly in the early stages. In a general way, for the purpose of relieving pain, particularly at night so as to procure sleep, the best local application I know is belladonna dissolved in glycerine. Many and various symptoms must be treated as they arise, especially good nutritious diet and plenty of it is necessary—cod-liver oil with or without maltine, or a good extract of malt are useful—thermal mineral baths carefully applied on the Aix-les-Bains principle, with massage. Sometimes electricity applied in the continuous current I have known to be of great use and cause wonderful improvement, but the cases must be carefully selected and vigilantly watched.

I may mention that in some few cases we have with considerable success forcibly straightened the ankylosed knee-joint or joints under anæsthetic influence so as to enable the patient to get about on crutches or walk with a stick, which is a great boon, but the condition and strength of the patient must be carefully considered before attempting the risk.

I have only to conclude these results of my long-continued observations with an apology for the length to which they have run, which was quite unanticipated by me. I am quite aware that I have omitted many important practical features and peculiarities of this disease to which I have not ventured to give a name. It might be called "pernicious arthritis" as far as destructive qualities are concerned.

DR. FELIX SEMON has been elected an honorary member of the Vienna Society of Laryngology and of the Italian Society of Laryngology.

AMONG the course of lectures to be given at the Royal Institution after Easter will be one by Professor James Sully, who will deliver three lectures on Child Study and Education. Professor Dewar will lecture on Recent Chemical Progress, and Dr. Robert Munro will give two lectures on Lake Dwellings. At the Friday evening meeting, on April 17th, M. G. Lippmann will give a lecture on Colour Photography.